

# AMERICAN FARMER.

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No. 6.

## WORK FOR THE MONTH.

### DECEMBER.

Without indulging in prefatory remarks we shall at once point out the things which should be attended to this month.

#### FATTENING HOGS.

Let it be your duty to daily inspect your pig pens, and see that your fattening hogs are regularly and faithfully attended to, and that they regularly receive their food at stated hours of the day, viz., morning, noon, and afternoon. As you may rest assured that there is no animal that suffers more than the hog from neglect in feeding—none that shows the evidence of attention and care more sensibly. If not fed at its usual hours, its outcries will, like a tell-tale, as he ought to be under such circumstances, proclaim his neglect. If fed fully and regularly, he will retire to his bed, if he have one, as he ought to have, go to sleep, put on muscles and fat, and, as a consequence, prepare more pork for the meat-tub. Interest then, as well as humanity, both concur, to render it necessary, that the fattening hogs should be fed whenever their feeding times arrive, be those times whatever hours they may. They should also be watered at each meal.

Charcoal and rotten wood should always be within their reach; so should a rubbing post, the latter to enable them to do their own scratching, and thereby allay the irritation in their skins ever consequent upon high feeding and confinement.

As it is well known, hogs take on fat best and fastest in moderate mild weather, it is therefore, the interest of the farmer to urge forward the process of fattening before the weather becomes intensely cold, in order that the corn he may give them shall be employed in forming fat, instead of being appropriated by the animals, in part, to keeping their bodies warm.

A mixture of salt, ashes and charcoal, tends to keep up the integrity and tone of the hog's stomach; besides which, the mixture acts antagonistic to the kidney worms.

#### FIRE-WOOD.

Permit us to persuade you to secure a full supply of firewood during this month: and, when prepared, to have it hauled in and piled away before the road to the woods becomes broken up with frost and thaws and add to the difficulty of hauling.

#### WINTER-PLOUGHING.

Those who have stiff clay lands will find it to their interest to have them ploughed during winter, the earlier the better—in order that they may receive the meliorating influences of freezing. And we seize

the occasion to say that clays should not be ploughed either in a wet or very dry condition, but that occasions should be seized when such soils are in a moderately moist state.

#### MILCH-COWS.

Treat these as we advised last month.

#### YOUNG CATTLE.

Give these shelter and feed them generously, so that they may be kept in a growing condition.

#### COLTS.

Manage these as we advised last month.

#### WORKING ANIMALS OF ALL KINDS.

See to it that those having charge of your working animals of all kinds manage them as we advised last month.

#### STABLES.

Have the floors of your stables dusted with plaster every few days; it will have a twofold effect, it will preserve the eyes of your horses from the baleful influence of ammonia gases, and preserve the latter for your crops.

#### SHEEP.

Manage these as we advised last month.

#### BROOD MARES—IN-CALF COWS AND HEIFERS.

These should be fed moderately generous, and receive such food as is nutritious. Feed them in sufficient quantities to keep their stomachs at peace; not to fatten them—but to preserve their muscular integrity—in a word, to keep them in good condition. Pregnant animals should not be kept fat—still they should be subsisted upon nutritious food. The feeder should recollect, that mothers as well as the young ones within them require feeding. While the mothers need it for themselves, to sustain their natures and answer the demands of the wear and tear of their systems, the young ones with which they are enciente, require sustenance also, as they have bones to be formed, *flesh to be elaborated and fat to be secreted*, and that these can only be formed, elaborated and secreted, when their mothers receive in their food the materials out of which they can be made. Good, warm, well ventilated stables, or comfortable dry sheds are indispensable to such animals, if you wish to preserve them in fine health, and to reap the reward of their progeny. Interest, the laws of animal physiology and humanity, all combine to sanction the treatment recommended.

#### FENCING.

Get out sufficient posts and rails to supply all the demands of next season. Have them hauled to your barn and placed convenient thereto, to give occupation to your hands in preparing them, at such inclement seasons throughout the winter when they cannot be profitably employed out of doors. Don't

put off this duty to some other time, but have it done at once.

#### GATES.

Substitute every pair of bars attached to your fields by a good, well constructed light gate.

#### ACCUMULATION OF MATERIALS FOR MANURE.

Employ a team and two hands in collecting all the rough materials on your place that can be converted into manure. Spread your cattle-yards and hog-yards a foot deep with them, and have the rest made into composts.

#### CARTS, WAGONS, TOOLS, IMPLEMENTS.

Have all of these carefully examined, repair such as need repairs, mended, and then put such of them as are not in use away under cover.

#### SLEIGHS.

Examine, repair, and furbish these up so as to have them ready for the first snow.

## WORK IN THE GARDEN.

### DECEMBER.

There is not a great deal to be done in Farmers' gardens this month; but still there may be some things that may have been left undone, which should be immediately attended to, and therefore we will note them.

#### CABBAGES.

If your cabbages have not already been taken up and stored away, have this duty at once attended to.

#### APPARAGUS BEDS.

If these have been neglected, have the old stalks immediately cut off, removed and burnt. Your beds cleaned, fork in some rotten manure between the rows, rake the beds and strew salt over them.

#### STIFF CLAY BEDS.

If you have any stiff clay beds in your garden, have them dug up a spade deep, and give them a dressing of lime.

#### FINGERS AND TOES.

The roots of cabbages, and turnips when grown on old beds, are frequently attacked with this disease. To prevent which, spade up such beds, and give them a free dressing of unslacked lime, and salt. Leave the beds in the rough till next spring, and between the effects of the dressing and the frost, the cause of the disease will have been removed.

**NEW CASTLE (Del.) AGRICULTURAL SOCIETY.**—At the recent annual meeting of this Society, the following officers were elected to serve the ensuing year:—

President—Bryan Jackson.

Vice Presidents—J. C. Clark, T. J. Adams, S. Canby, C. I. du Pont, G. Lambson, B. Reybold, John Jones, D. W. Gemmell, F. P. Holcomb, A. M. Higgins.

Corresponding Secretary—G. Pepper Norris.

Recording Secretary—George Jackson.

Treasurer—Charles W. Howland.

Counsellor—John Wales.

Directors—J. A. Brown, A. H. Adams, G. G. Lobdell, H. L. Tatnall, Jacob Walton, Dr. A. H. Grimshaw, Richard Jackson, J. M. Bracken, Z. Townsend, and Geo. Z. Tybout.

[For the American Farmer.]

## ROCK GUANO.

40 Bolton street, Nov. 5th, 1857.

Messrs. Editors:—I see that, in an article on this subject, published in your November number, Mr. Taylor has taken exception to certain remarks of mine in my criticism on Professor Johnson's article. He objects to the opinion I advance that the Rock Guano of Testigos and Centinela is simply mineral matter and cannot properly be called Guano. To this Mr. Taylor replies that he has found the phosphate of alumina in all Guanos, in variable proportions, and intimates that the difference between the article imported from Testigos and that brought from Los Monges, is simply a question of more and less, the interchange of bases being common and frequent and only more complete in the one case than in the other.

Much of the difference between us is verbal, and could be settled at once by a simple definition of the word, Guano. By common consent, the old Peruvian word *humano*, meaning excrement, has been heretofore applied, exclusively to the excrements of birds. As I understand it, it means that excrement altered by agencies purely atmospheric, the differences between the Peruvian and Mexican Guanos, being solely occasioned by the copious rains which fall upon the latter. These wash out the soluble salts and facilitate decomposition, so that the progress of decay reaches a point which it does not attain in the other. Neither Peruvian nor Mexican Guano resemble the fresh excrement in chemical composition. Fermentation has taken place in both of them, but in the former that process has only gone so far as the water originally contained in the substance could carry it. Reaching that point, it has been checked, and the Guano has been, so to speak, mummified. Expose the Peruvian Guano, however, to the action of the rain alternated with high solar heat, and we should unquestionably have a substance identical with Mexican Guano. As for Colombian Guano, I have always hesitated to express an opinion concerning the mode in which it has been formed, for the simple reason that I have never had what appeared to me sufficient data. I believe, however, that it results from peculiar atmospheric causes modifying fermentation, and perhaps from some original difference in the chemical composition of the excrement as voided.

The analogy among these different varieties will be readily seen by the annexed table expressing the per centage of lime, phosphoric acid and organic matter they contain. For Peruvian Guano, (No. I.) I take Ure's average results. The other analyses are my own, and I have selected them to represent the purest and best specimens of each variety. No. II. is a fair specimen of the best brown Mexican marked AA in our market. No. III. is a good specimen of white Mexican, which is further advanced in fermentation, and No. IV. is from one of my analyses of a selected specimen of Colombian Guano.

	I.	II.	III.	IV.
Organic matter,	50	11.06	7.10	2.98
Lime,	25	30.78	43.91	38.75
Phosphoric acid,		31.22	37.12	45.59

The gradual decrease in the organic matter and the gradual increase of the Phosphoric acid in these different guanos is very marked and shows them to have had a common origin and to have

been subjected to similar changes in a greater or less degree. The fluctuation in the lime is due to its different states of combination, and to some extent, also, to the presence of magnesia in varying proportions in the specimens under consideration, the last named base appropriating consequently different proportions of phosphoric acid.

Having now, I trust, sufficiently explained what I mean by the term Guano, and why I am unwilling to apply it to the rocks from Testigos and Centinella, I proceed to certain other portions of Mr. Taylor's communication.

If I understand his argument correctly, it is to the effect that as alumina is found to be a component part of all the hard guanos, its presence in greater quantity in the rocks from the islands in question, cannot exclude these last from the category of guanos. Certainly, that peculiarity alone would be insufficient, were alumina proved to be an essential constituent of all guanos. But is it? Mr. Taylor says he has found the phosphates of iron and alumina "in the guano rock from all the islands, though in some it is in very minute quantities, but in all in variable proportions, and farther, that wherever found it is most probably in the form of wavellite." This may be, though I have only noticed it in the guano from El Roque, which I analyzed a month before I saw Mr. Taylor's first report. In the first full analysis I made of Los Monges guano, I found but a trace of Phosphate of Iron, and in the second, only 0.35 per cent. Granting the presence of alumina, however, the question still remains, as to its origin and consequently as to the propriety of considering it an essential portion of the Guano.

Upon examining Mr. Taylor's paper read before the Academy of Natural Sciences, I cannot find that he has detected alumina in any pure specimen of Monk's Island Guano. Of one variety of hard guano in which he found much alumina and oxide of iron, he says, "there is doubt as to its exact locality." In the only unquestionable specimen, (obtained from Dr. Luther,) which he seems to have examined, he says, "not a trace of alumina can be detected." He finds it, however, in the cargo of the Schooner Trident from Los Monges, to the extent of 1.32 per cent. Evidently therefore, the phosphate of alumina is extraneous. If the mineral Wavellite occurs upon the islands, it is very easy to account for its presence, since we know that many of the birds which frequent these islands use small stones in building their nests.

The question, however, is not yet settled, since we have to determine the origin of this very Wavellite. In reference to the source of the phosphoric acid of this mineral, Mr. Taylor quotes Bischoff, to the effect that, in all probability all the phosphoric acid now existing in minerals has once circulated in the organisms of plants and animals. This suggestion, in spite of Bischoff's high authority, will hardly be accepted by any one who knows that phosphates, apatite for example, often occur in the igneous rocks, the oldest on our planet. Besides, the inquirer may very naturally ask, from what source did the plants and animals obtain their phosphoric acid? Every physiologist knows that they cannot create it. He knows too, that animals get all their phosphorus originally from plants and that plants get it from the soil in the form of phosphates. There must, therefore, have been some primeval source of phosphates in the old rocks, before there were any plants and

animals; and the conclusion is very natural that it could at any time exist without these organic beings, it can so exist now; hence there is no necessity for suspecting an animal origin of every phosphate.

Still this Wavellite may have had such an origin. Mr. Taylor cites instances of substitution of bases taking place among phosphates. This is undoubtedly true, but the paucity of the instances hitherto recorded proves the rarity of the event, and the limited extent to which it takes place. Thus, in the transformation of the arm bones cited by Mr. Taylor, and described by M. Nickles in the *Comptes Rendus* for December 24th, 1855, we are expressly told that these two bones were found in the midst of great numbers of others which had been accumulating for years in the cemetery of Eumont. The carbonate of iron of which Mr. Taylor speaks, must have existed about the others as well as about these two, and yet these are the only ones which have been found so changed. It is difficult to deduce from this isolated and partial action, a law which shall apply to such great masses as the cliffs of Centinella and the rocks from Testigos.

Mr. Taylor does not formally express a definite opinion as to the origin of this phosphate of iron and alumina, but I infer from the general tenor of his remarks that he supposes it to have been formed by a reaction between the phosphates, in the guano, and the alumina and oxide of iron in the surrounding rocks, as the vivianite noticed by Nickles originated from a similar interchange, between bone phosphate and the iron of the water which had penetrated the interior of the bones. To conceive of the possibility of this interchange we must admit one of two events to have taken place. Either soluble salts of iron and alumina must have penetrated the already hardened guano or the phosphates in common guano must have become soluble and percolated through subjacent porous rocks containing salts of iron and alumina capable of decomposition. The first case is not easily imagined to be possible, as we must conceive of a great amount of over-lying earth, which has subsequently disappeared, and must also allow a porosity not observed in Colombian Guano. It is difficult to conceive of the possibility of percolation through the dense, hard enamel which coats this remarkable substance. As for the latter supposition, so slight is the solubility of the phosphates of ordinary Mexican Guano, that it is impossible to conceive of the event taking place except in the geological cycles which Mr. Taylor discards, and some may be inclined to doubt that even they are adequate to the production of such results. Besides in either case, we do not see what has become of the lime of the original phosphate.

Mr. Taylor speaks furthermore of the mineralogical resemblances between these two classes of rocks, the Colombian Guano, properly so called, and the rock from Centinella and Testigos. Without attaching much importance to mineralogical characteristics in substances like these, I must be permitted, with great deference to Mr. Taylor's acknowledged skill in mineralogy, to differ from him. The structure of the two rocks differs materially. By far the greater majority of those which have come from Testigos have a somewhat brecciated structure. This I have never observed in any of the specimens of true Colombian Guano which I have examined, and it does not appear to

have been noticed by any one who has described that article. As for the indistinct white coating upon the specimens from Centinella, it does not at all resemble the enamel upon the true Colombian Guano from Los Monges. The latter is made up of very distinct concentric layers, and has, as Drs. Higgins and Bickell have shown, a different chemical composition from the body of the rock. The former has the appearance of a mere weathering, suggesting the idea that the phosphate of iron, being the more soluble salt, has been washed away by the rain, while the white phosphate of alumina, more resisting to the action of water, has remained upon the surface.

The greatest difficulty in the way of this theory is the constitution of the rocks themselves. The total absence of organic matter is not easily accounted for upon that hypothesis. Thenard and Chevreul have shown that the fermentation of animal matter generates a dark substance, which has a powerful affinity for oxide of iron and alumina, and that it is owing to this fact that the soil is able to retain the rich matter of farm-yard manure. Now if, during the fermentation of the excrement of birds, the supposed change was going on, ought we not to find some organic matter in the rock in question, since the compound just mentioned is so stable as to resist even the attack of hydrofluoric acid? Furthermore, the iron guano contains a very perceptible amount of fluorine, while it is with difficulty that a trace of that substance can be obtained from the Colombian Guano.

Mr. Taylor enters also into a defence of the use of the new phosphates in agriculture, and says he does not see why they should be condemned. I have never condemned them. I have, indeed, in private written opinions, expressed the belief that Colombian Guano was better, but have never denied the possibility of their being found, upon trial, valuable fertilizers. I have, indeed, ascertained, by direct experiment, that a very considerable proportion of the phosphoric acid contained in the alumina and iron Guano from El Roque is soluble in dilute solution of ammonia. I also think it probable that the soluble silicates in the soil may decompose these substances and so facilitate the appropriation of their phosphoric acid. I am at present engaged in investigating this subject, and should I obtain any interesting results, I shall communicate them to the readers of the Farmer. Very respectfully, yours, &c.

A. SNOWDEN PIGGOT.

[For the American Farmer.]

#### A NEW PHOSPHATIC MANURE, FROM SOMBRERO.

BY A. SNOWDEN PIGGOT, M. D.

At the point of the angle formed by the Leeward and the Virgin Islands, is a small Island known by the name of Sombrero. It is rocky, but sparsely covered with vegetation, and gives evident tokens of submarine formation and subsequent upheaval. The remarkable point about it is that it is, according to the reports of those who have visited it, one great mass of phosphatic rocks.

That they are of marine origin is evident from the fragments of corals, some of them much water-worn, the shells and other marine products which are embedded in the rocks. These are found in all the different varieties of rock which have been brought from that place, but most abundantly and

in best preservation in the soft, white chalky rock of the island. I have carefully examined these fossils with a view of determining, if possible, the date of the formation. The specimens which I have received are not sufficiently numerous to enable me to speak very positively upon this subject. I incline, however, to the opinion that these rocks are a recent production and that, in all probability, their formation is still going on. Many of my specimens are mere casts of the interiors of shells from which but little information can be gained. Among these is one of *Tellina Radiata*, with a very distinct impression of the cardinal teeth. The only perfect shells which I have obtained are the *Cypræa exanthema*, the *Strombus pugilis* and the *Byssarca Noë*. These are all common shells of the warm waters of this side of the Atlantic; and so far as they go, there is reason to believe that the formation is recent, like the limestone of Bermuda and Guadeloupe.

The rocks which have been brought in, present a great variety of color and texture. For the sake of convenience of analysis, I classified them when I examined them, under four heads as expressing those differences which could be easily detected by the eye. There was a red ochrey substance, soft and friable, which I call in the following table, No. I. There was another rock varying in color from a deep reddish brown to a pale pink. This was hard and generally uniform, though in some instances, it was brecciated in its structure. Most of the specimens had a dull fracture, though some of them exhibited a lustre somewhat resembling that of feldspar, but feebler. The outer surface of some of these was rough and mamillated, slightly resembling the external coating of Colombian guano. This is No. II. in the table. There was also a hard white rock, resembling the last named except that it contained more fossils. This is No. III. No. IV. is a white soft rock, closely resembling chalk and very full of fossils. The following is the result of a chemical examination:

	I.	II.	III.	IV.
Lime,	40.03	41.81	39.63	50.57
Magnesia,	0.85	Trace	1.80	
Oxides of Iron		5.80		
and Alumina,	9.68	4.34	4.08	
Phos. acid,	33.46	38.49	38.55	13.49
Carbonic acid,	3.50	0.81	1.33	26.21
Sulphuric acid,	Trace	1.07		
Chlorine,	0.13	0.21	0.21	
Water,	11.10	6.13	13.80	
Sand,	0.62	0.79	0.47	
	99.37	99.45	99.87	

I take the following to be the method in which these substances are combined.

	I.	II.	III.	IV.
Carbonate of Lime,	7.95	1.84	3.02	61.80
Phosphate of Lime,	65.07	74.34	70.46	29.47
Phosphate of Iron,	2.22	6.37	5.35	
Phosphate of Magnesia,	2.34	Trace	5.26	
Chloride of Sodium,	0.22	0.34	0.35	
Sulphate of Lime,		1.22		

To give some idea of the regularity of the average composition of this substance I will state that I took a carefully averaged sample from the entire cargo out of which the above specimens had been selected and that it contained 37.44 per cent. of Phosphoric acid.

This article has been branded and sold as White Mexican Guano, which it resembles in its amount

of phosphoric acid, the best selected specimens of that article from Pedro Keys containing about 37 per cent. Its action on the soil will also be very much like that of White Mexican. From this article it differs chiefly in the absence of organic matter and the presence of carbonate of lime which is not often found in any quantity in White Mexican Guano. This difference, however, is not material, as the organic matter of the guano contains a very inconsiderable quantity of ammonia and can only be valuable from the fact of its furnishing carbonic acid during its slow decay, and so increasing the solubility of the phosphate of lime. The carbonate of lime in this phosphate will play the same part, it being a well known fact that chalk greatly promotes the solution of bone-earth. This is due, in all probability, to the elimination of carbonic acid in consequence of the action of the organic acids of the soil upon the carbonate. It may also aid the process of solution by subdividing the phosphate more minutely.

For the ordinary purposes of the farmer, I can see no advantage whatever possessed by the White Mexican Guano over this newly introduced phosphate. It seems to me, therefore, that this brand has been very properly selected, to indicate the quality of the new article by comparing it with one so well known. It should be a theme for congratulation among farmers, that, just at this time, when the supply of phosphatic guanos of the higher grades is failing short, so large an amount of so excellent a substitute should have been discovered.

#### SURFACE MANURING—COMPOSTS FOR POTATOES.

ACCOMAC, VA., Nov. 13th, 1857.

*To the Editors of the American Farmer:*

Much diversity of opinion seems to exist among farmers and theorists about surface manuring; some contending that to apply manure to the surface is the only rational and economical way; while the advocates of the opposite theory assert with equal positiveness, that thus to leave the manure exposed to the action of the weather, is a sure way to destroy all its valuable qualities with little or no benefit to the land. That there is some truth in each theory, perhaps, may be safely asserted, for in this as in most other mooted questions, especially in agricultural science, truth is most often found between extremes; hence practical farmers should be cautious how they become exclusive advocates of any extreme opinion, lest they should sacrifice truth and their own interests to a favorite dogma. Shading the ground, all observers are aware, is a benefit, but to rely upon shade alone to improve our lands, we perhaps, should require the aid of Methuselah to bring them to any very high state of permanent improvement; moreover there is danger in following the opinions and practice of English farmers too closely; their extremely humid atmosphere preventing the escape of the gases to the extent that may take place in our hot, dry air. Then to plow the manure deep under the surface, decomposition may cease, and thus it may be entirely unable to contribute to the growth of plants, till it is brought near to the surface again. We are the advocates of neither theory exclusively, for the simple reason that, with the lights before us, we are unable, intelligently to decide. Now that an approximation to the truth may be made, we propose that farmers put the two theories to the test the same year,

with the same crops, and let this be done over some extent of country, that the influence of different soils and weather may have their due weight; then let each experimenter make a careful report to the Farmer, that each one may have the experience of all: it is by this means only, that mooted questions can be intelligently and usefully settled, while at the same time, it animates a host of co-laborers to vie with each other in discovering the great desideratum, viz: to renovate exhausted soils in the earliest and most economical way.\*

We shall endeavor to contribute our mite to the above object the coming year, by devoting a part of a patch of our favorite crop, the sweet potato, to each system of manuring. We propose to spread the manure on the surface on part of the patch, and there let it remain till needed, on the other part, to spread and plow under in the usual way, and the result to report to the Farmer.

#### WOODLAND.

I wish to make some inquiries in reference to a suitable compost for the sweet potato to be applied in the drill. The ground intended to be used has been manured and planted in sweet potatoes for three years in succession, consequently it is in tolerably good heart. The manure used for two years, was a compost formed of stable and woods; for this year, pound and stable manure, mixed, broadcasted each year. Wishing to save as much of my domestic manure as possible for my corn, I am anxious to substitute a compost for the aforesaid ground intended for sweet potatoes.

How would the compost suggested in the Farmer a few years go answer? (200 lbs. cracklins, 4 bushels bone dust, 5 bushels ashes); should I adopt the above, I propose to add one load well rotted stable manure and five loads fine woods mould (one horse cart load) per acre to increase the bulk, and at the same time avoid too much trash. [1.]

Would either of the varieties of guano be a profitable addition? or could they be advantageously substituted for the ashes or bone dust? [2.] Can cracklins be had in your city? at what price and at what season? at what price can poudrette be had? would it be suitable alone, or in compost, for the sweet or Irish potato? How much per acre in drills three feet apart?

If you have a compost for the sweet potato superior to the above or equal for the same money, you will confer a favor by stating it, also one for the early Irish potato, to be applied in the drill. [3.]

W.

#### ANSWERS.

No. 1 would be an admirable manure for sweet potatoes, or any other vegetable grown. The cracklins or greaves contain, for every hundred pounds, besides other matters, the elements of 13 pounds of ammonia.

No. 2. 200 lbs. of Peruvian Guano, and 2 two-horse loads of woods-mould, might answer for an acre in sweet potatoes, without anything else.

No. 3. Poudrette is \$1.25 per bbl. 4 bbls. per acre, mixed with 4 two-horse loads of woods-mould, or barn-yard manure, would answer for an acre in sweet or Irish potatoes.—Ed. Am. Far.

\* To be satisfactory, the experiments should be continued through some series of 5 or 7 years.—Ed. Am. Far.

## ON MANURING.

To the Editors of the American Farmer:

GENTLEMEN:—Much has been written upon the subject of surface manuring, a great deal of which has been based upon theory. Now, much as I admire science as the hand-maid of experience, I would rather have one fact than forty reasons.

I have long since been convinced, that much of the strength or value of manure, (stable or barn-yard) is lost by exposure to fermentation and rains.

Upon one occasion, some years ago, I commenced hauling the manure from the stables in November, and spread it upon a clover sod; this I continued to do, until April, when the ground was plowed and planted in corn. The result was, that, that hauled out in November produced the best corn, the other gradually diminishing in quantity to the April manuring or that plowed under as soon as spread.

The next year I tried another experiment. In the spring I covered a piece of ground with manure and plowed it directly under. An adjoining piece I plowed and spread the manure upon the surface; in both places the manure was long unfermented. The ground that had the manure spread upon the surface made the most corn.—This has been my experience whenever I have tried it, and so well am I satisfied of the benefit of it, that I would never remove the straw from the ground if the grain could be gathered without it. My practice is to haul the manure from the stables as soon as they are cleaned—that in the cow yards must of course lie over.

I offer these few remarks in hopes they may elicit for your readers something from those whose experience is greater and whose judgment is better than mine.

G. M. E.

Cecil Co., Md., November 9th, 1857.

## PREMIUM HAMS.

To the Editors of the American Farmer:

You are requested to publish the several recipes for curing bacon hams, which received the premiums at the late Exhibition of the Maryland State Agricultural Society, and oblige,

THE CHAIRMAN OF THE COMMITTEE.

[The recipes are given below—by which it will be seen that three exhibitors used the same materials in the curing, and the exact amount per 1,000 lbs. Of the four unsuccessful competitors, one embraced the same proportions with these, and in one other, the proportions were about equal per 100 lbs.—Ed.]

## FIRST PREMIUM

Recipe to cure 1,000 lbs. Pork Hams.

Mix 2½ lbs. saltpetre, finely powdered, ½ bus. fine salt, 3 lbs. brown sugar, ½ gallon molasses. Rub the meat with the mixture; pack with skin down. Turn over once a week, and add a little salt. After being down 3 to 4 weeks, take out, wash, and hang up 2 or 3 weeks, until it is dry. Then smoke with hickory wood 3 or 4 weeks; then bag, or pack away in a cool place—not a cellar—in chaff or hay. Examine occasionally, and renew dry packing material.

THOS. LOVE,

Loveston, near Cockeysville, Md.

## SECOND PREMIUM.

The meat after being cut out must be rubbed,

piece by piece, with very finely powdered saltpetre, on the flesh side and where the leg is cut off, a table spoonful (not heaped) to each ham, a dessert spoonful to each shoulder, and about half that quantity to each middling and jowl; this must be rubbed in. Then salt it, by packing a thin coating of salt on the flesh side of each piece, say a half inch thick, pack the pieces on a scaffolding, or on a floor with strips of plank laid a few inches apart all over it, (that is, under the meat); the pieces must be placed skin side down, in the following order: 1st layer, hams; 2d, shoulders; 3d, jowls, 4th middleings—take the spare-ribs out of the middleings. If the hogs are very fat, pare the fat carefully from the flesh side of the ham. The meat must not be frozen. It must lie in this wise; six weeks if the weather is mild, eight if very cold—the brine being allowed to run off freely.—The smoking is an entirely different matter, and will require personal instructions to the persons entrusted with the smoke-making.

J. HOWARD MCHENRY,  
Baltimore County, Md.

## THIRD PREMIUM.

To 1,000 lbs. of meat—½ bushel of fine salt, 3 lbs. brown sugar, 2½ lbs. of saltpetre, ½ gallon best molasses. Mix these ingredients together, then rub each piece well with the mixture, until all be absorbed. The meat must be taken out of the pickle once a week for six weeks; the two first times the meat is taken out, there is to be a plate of alum salt added to the pickle which the meat makes.

MRS. WM. H. MARRIOTT, JR.

Woodford Hall, Oct. 25th, 1857.

## FOURTH PREMIUM.

2½ lbs. saltpetre, dried and finely powdered, ½ bushel best Liverpool salt, 3 lbs. brown sugar, and ½ gallon molasses. Mix all in a vessel, rub the meat well with same, and pack with skin down.—It should be turned occasionally, adding at same time a little more salt.

The above is the exact amount required for 1,000 lbs. pork. After being in salt 3 to 4 weeks, take out, wash clean the pieces, dry, and hang it up for smoking. Three weeks is sufficient to smoke them thoroughly—by fire made of hickory wood. When smoked, take down and bag, or pack away in dry chaff or cut straw. Examine them occasionally, and if found to be at all damp, renew the packing with dry material.

CHARLES JESSOP,  
Fauzhall, Baltimore Co.

AGRICULTURAL SCHOOL.—The Southern Farmer, of Petersburg, understands that the Bellona Arsenal, situated on James River, in Chesterfield county, has been purchased of the United States Government by Col. Philip St. George Cocke and Dr. Junius L. Archer, with the view of offering it at cost to the Farmer's Assembly, at their next annual meeting, for an Agricultural Institute. The price paid to the government was only \$2,750 for the buildings and grounds, which originally cost not less than two hundred thousand dollars. These buildings are all in good order, having been carefully kept in a state of preservation by the government, so that they will require little or no additional expense in fitting them for the purpose of an Institute.

## FRUIT GROWERS' ASSOCIATION. SUMMER MEETING.

The Fruit Growers' Association of Western New York held its SUMMER MEETING at Rochester, on the 18th and 19th of September. The Convention was well attended, not only by gentlemen residing in the Western part of the State, but by several from Central and Eastern New York, and from other States. A Committee was appointed to prepare questions for discussion, and these subjects are presented in the order in which they were discussed. The President, J. J. THOMAS, of Union Springs, occupied the chair.

*What is the cause of the Cracking of the Pear, and of the Leaf Blight, (so called)? What varieties among our best Pears are most subject to it, and what most exempt?*

H. E. HOOKER, of Rochester, knew something of both diseases—the leaf blight and the cracking of pears,—but knew nothing of the remedy. Did not know for a certainty that there was any connection between the two. The leaf blight was most severe on young trees in the seed bed and in nursery rows, but sometimes attacked trees in the orchard. Some varieties appeared more liable to crack than others, yet varieties that crack one year are often exempt the next. Had never known the Bartlett or Flemish Beauty, and some other varieties, to crack.

Mr. P. TOWNSEND, of Lockport, stated that up to the 6th of the present month the weather was very favorable to the growth of trees, but at that time a change occurred, and the atmosphere then assumed that peculiar character which is supposed to cause grapes to mildew. On the morning of the 6th inst. found the bearing trees of Beurre Diel affected with the leaf blight for the first time this season. The two-year old nursery trees were not affected. Previous to this had seen no indication of cracking in the fruit, but the pears soon cracked, and a few days after the leaves of the Virgalieu trees became affected in the same way, and the fruit began to crack. In the rows with the Beurre Diel were trees of the Summer Francreal and Flemish Beauty, but these were not injured.

Mr. HOOKER said the instantaneous blighting and blackening of the leaf described by Mr. Townsend, and which was rather peculiar to the Beurre Diel, was not the disease known as the leaf blight.

Mr. BARRY had not seen the Beurre Diel affected in this way. Had a Virgalieu tree that last year lost its leaves as if sun-struck. They all fell, and the tree seemed to be dying, but this season it recovered. The question under discussion was an important one, as one of our most popular pears (the White Doyenne,) is beginning to crack at various places where it has previously been raised in perfection. Mr. B. learned from gentlemen present that it had cracked badly this season at Cayuga Bridge, Brockport, and Walworth. Could not throw much light on the subject, but thought that it was caused by a fungus growing on the surface. Had seen the fruit crack when the tree was growing vigorously. Had none of it on their own grounds.

Mr. SMITH, of Geneva, had paid some attention to the subject, and thought it the work of an insect, though he was not very positive. Had noticed that the cracking commenced generally during a warm spell after a shower.

Mr. BARRY would state a fact that he had just learned from a gentleman present. Mr. Yeomans, of Walworth, it was well known, had a large dwarf pear orchard. A part were Virgalieus and a part Duchesse de Angouleme. The Virgalieus cracked and Mr. Y. grafted some of them with Duchesse, and some he sold to a neighbor. They were planted in the vicinity, are doing well, and the fruit has never cracked since the removal. This would seem to indicate that unsuitableness of soil caused the cracking.

Mr. HOOKER said Mr. Yeoman's ground, although high, was a heavy, moist and retentive soil. His experience was that fair fruit could not be relied upon except on a naturally dry soil.

H. N. LANGWORTHY inquired if, in its incipient stages, the disease on the fruit and the leaf was not something like the grape mildew, and might not be attributed to the same causes.

R. R. SCOTT stated that the *Oidium Tuckeri*, or Grape Mildew, had been fully experimented with, both as to cause and cure. The pear blight, which also causes the cracking of the fruit, and the dark blotches often observed was known to scientific men as a fungus of a different family, called, when found on the pear, *Helmenthosporium Pyrrum*, or pear fungus, and when found on the apple, or service tree, *Actinema Cratagi*, or *Actinema Pomi* of another botanist. It was also known as the *Cladosporeum Dendriticum* of Wallroth, and is found in the tissues at an early stage of growth—afterwards rupturing the cuticle and destroying in this way the subjacent tissues. The dark section of the fungus tribe did not easily yield to sulphur applications, at least not so easily as the Oidiums or white species, but it is confidently believed that early and judicious applications of sulphur will counteract the progress of this pest.

J. J. THOMAS, of Union Springs, could tell what he did not know about these things. Had thought it was a fungus, but could not discover by a powerful microscope any distinct plants. Blight of the leaf and cracking of the fruit generally go together, though sometimes and particularly in wet seasons, the fruit will crack on healthy, vigorous trees. Planted a small Virgalieu Pear tree on his grounds and on a new soil, and the first crop spotted and cracked, but the fruit ever since has been fair and good. Never knew Beurre d'Amaulis to crack or Ananas d'Ete, in fact, the Bartlett and other strong growing sorts seldom crack.—Flemish Beauty never cracks, though it sometimes loses its leaves. Thought that the leaf blight might be a fungus like the Rust in wheat, but never could discover a distinct plant as can be done in wheat rust. It may, however, be somewhat similar and propagated in the same way by sap and through the pores.

Mr. HOOKER found that pear stocks that had blighted in the seed bed the previous year were almost certain to blight early when set out in nursery rows, and had to keep a sharp look out for a chance to bud. Stocks that had not blighted in the seed bed, would not be likely to blight in nursery rows until some weeks later if at all.

Mr. TOWNSEND had raised a bed of pear seedlings, where the ground was rather low, and the leaf blight commenced with the seedlings on this ground, and, for a time, this low spot was as well defined by the blight as it could have been by standing water, but it finally spread over the whole bed.

Mr. LANGWORTHY inquired if no remedy had

been discovered, or something that would, at least, check the disease.

Mr. THOMAS said that attempts had been made to arrest and prevent the disease by washes. Mr. Hovey was once sanguine that he had found a remedy. ZERA BURN, of Perinton, once informed him that he was on the right track; but we heard no more of these remedies and he supposed they may be pronounced failures.

Mr. TOWNSEND had tried washes made of lime, plaster and salt. The first two did no good, and the last destroyed the leaves.

Mr. BARRY thought all the advice we were now prepared to give was to plant those varieties of the pear that were the least liable to crack.

Mr. BERCKMANS, of New Jersey, and formerly of Belgium, states that in Belgium, the leaf blight is unknown, but in wet seasons the fruit cracks. — But, if they have twenty days in a summer without rain, in Belgium, it is called a dry one.

*What are the comparative advantages of raising nursery trees on fresh soils previously unoccupied with trees, over cultivating them on soils, which have been repeatedly occupied with such trees, and the fertility maintained by heavy manuring?*

CHAS. DOWNING, of Newburgh, had no experience with very new land, but found he had to manure very highly to raise a second crop on the same land.

H. E. HOOKER had some experience with both. Had seen as good trees raised on land that had been in nursery culture for 15 or 20 years, as on new land. Had no faith in the exhaustion of the soil for trees. Could not grow apple trees after apple trees, but after a year or two of rest, the land being laid down to corn or grass it will do again. Subsoiling, manuring, &c., will make the land as good as new.

Mr. DOWNING had planted corn and potatoes, subsoiled and manured, but did not succeed very well in obtaining a good and healthy growth the second time.

J. J. THOMAS, of Union Springs, thought the difference in the natural strength of the soil had something to do in producing the different results spoken of. Seed beds were the worst on land, the nursery rows much less so, and permanent orchards still less.

Mr. BARRY said no gentleman present would doubt but that with proper manure, trees may be grown for any number of years on the same soil. The question he thought was, are the trees grown on an impoverished soil by heavy manuring as vigorous and healthy, as good for the orchard, as trees grown on a new soil, with little or no manure. Had known trees grown on the same land for eighty years. Trees grown on new soils have fine fibrous roots in abundance, but on old soils, made rich with manure, the roots are thick and forked, and have few small roots. Thought many of the diseases to which our trees were subject, were caused by the use of strong manures.

H. E. HOOKER thought all our soil was pretty old. One crop of apple trees, to be sure, is a pretty good drain, but if, after manuring, it should be planted with peaches, evergreens or some other nursery crop, should expect good result. Had now an excellent crop of peach trees growing on an old seed bed. Thought our land was intended to be inexhaustible with proper culture.

Mr. BERCKMANS said the method pursued in Bel-

gium was, after a crop of trees, to grow root crops for about two years, and then plant trees again. — Potash is of the greatest benefit to land after a crop of trees, and is much used in Belgium, though very dear. In this country it is cheap and could be used to advantage. Used it himself for his trees, and had in some cases given them a little too much.

Mr. BARRY thought the growers of pot plants showed us a very useful lesson. They would send a hundred miles to obtain a new fresh soil from a pasture, or the corners of the fence, or the woods.

T. C. MAXWELL, of Geneva, last fall dug a block of cherry seedlings grown on land that had been one-half previously used for dwarf pears, and the other half cherries. The seedlings, from the pear ground were double the size of those from the old cherry ground. Have now a splendid growth of cherries after peaches.

*Can a Pear on Quince stock be cultivated advantageously on a large scale for market?*

J. J. THOMAS said the most remarkable orchard in Wayne county was the dwarf pear orchard of T. G. YEOMANS of Walworth. He had succeeded admirably with the Duchesse de Angouleme, but not as well with the White Doyenne. He examined the bearing trees on the grounds of ELLWANGER & BARRY. On one-half acre stood 500 trees of the White Doyenne, six years old, and he had made a carefully low estimate of the fruit now on the trees, and would state at 60 bushels, though he had no doubt it was more. These, if sold at the low price of 3¢ a bushel, would certainly yield a good profit on half an acre of land, besides paying for the culture. Last year the crop was larger. The crop on some other varieties, and on other parts of the grounds he had no doubt was five times as large. The Louise Bonne de Jersey were truly bending under the weight of fruit. He was satisfied that dwarf pears could be cultivated in the field with horses, like corn, and large crops and large profits realized by the cultivator. A few free growing, productive sorts, well proved, should be selected for the orchard, and the new and untried sorts left to be proved in the garden.

Mr. HERENDEEN, of Macedon, had recently visited the orchard of T. G. YEOMANS, at Macedon. — He had 10,000 trees, 7 years old. They were of different sizes, mostly as much as 3 or 4 inches through the trunk, and bearing from half a bushel to a bushel. Saw several specimens that weighed over a pound. They were all the Duchesse de Angouleme, and thought that they were as sure as the potato crop.

H. N. LANGWORTHY inquired if the Duchesse de Angouleme was adapted to this climate, and to light land, as he had not succeeded with it.

Mr. ELLWANGER inquired if Mr. LANGWORTHY had grown it on pear stock, and being answered in the affirmative, stated that this variety never did well on the pear stock.

Mr. TOWNSEND stated that seven years since he commenced raising trees. A quantity of quince stocks were imported and set in the usual manner — in nursery rows, and budded with Pears. At the age of one year, one half the pear trees were dug out. He then determined to leave the balance in such a manner that the ground might be occupied by a pear orchard, which was done by removing two rows and leaving one, which made the distance 10 feet between the rows. The rows thus

left were thinned out so that they stood 3 or 4 feet apart. At the distance of 30 feet in each alternate row, a standard pear tree was planted, so that the ground was cut up into squares of 10 feet, which I think is the proper distance for a dwarf and standard pear orchard. The dwarf trees on this plot are now 5 years from the bud. The land occupied by these trees is about one acre. The product this year, 11 barrels Bartlett, sold for \$10 per barrel, and by estimate the balance of the crop will be 30 barrels, which is sold at the same price. These same trees in 1855 yielded 18 barrels; in 1856 but a small crop. The varieties of Bartlett, White Doyenne, Le Cure, Louise Bonne de Jersey and Duchesse de Angouleme, with a number of varieties planted as specimen trees. Mr. P. had not the least doubt but the culture of pears upon quince could be made profitable. But the planter of dwarf trees could not expect a return without at least giving his trees as good tillage as he does his potato field; and the course taken by most planters has been quite the contrary, which has in a great measure been the cause of the prejudice against the planting of a pear on quince. There is not the least question but that the planting of trees and their cultivation can be profitably made to replace the loss of the wheat crop; [in New York;] nor is there any cause to fear over production, so long as the western portion of our land is open to us as a market.

Mr. Brown, of Geneva, would like information as to the best way of planting dwarf trees. Some recommend putting the trees down so low that the point of union between the pear and quince will be two or three inches below the surface of the ground.

H. E. Hooker, in transplanting some specimen trees that had been planted in this way found that roots had started from the pear wood, and the quince roots were dead. If he planted dwarf trees he wanted the trees to remain dwarf.

Mr. BERCKMANS said that although roots were thrown out from the pear wood, the tree never becomes a standard. There are now trees in this country forty years old, that have rooted from the pear, but they retain their dwarf habit, though gaining in vigor. The pear roots aid in strengthening the tree and make it more firm, so that it is not swayed by the winds. When pear roots are first thrown out it is well to take them in the hand and lay them around the tree. Sometimes when the quince is above ground the pear overgrows it, and it is subject to injury from the borer.

Mr. BARRY said his rule was to plant the trees so that all the quince root would be covered. If the quince stock is above ground it dries and is very apt to become injured. He would take no pains to secure roots from the pear wood, as he liked small trees. Mr. B. would say a few words on the main question. A few years ago we were all equally in the dark. We didn't know but all pears would grow well on the quince, but experience has taught us that only a few varieties succeed. Persons who had not even obtained the little knowledge to be had on the subject have purchased trees entirely unsuited to their wants—perhaps varieties that would not grow on the quince—they of course languish or die. The unsuccessful cultivator sits down and writes an article for some agricultural paper, pronouncing the whole dwarf pear business a humbug. With the light we have at present on the subject, any person

can select varieties that are as certain to grow and produce a crop as either corn or potatoes. Mr. B. thought that the interests of Western New York and of our city, would be much promoted by the rapid extension of fruit culture. Our population is not increasing and perhaps decreasing—our great staple, wheat, is now uncertain, if not a failure,—our young men of talent and enterprise are leaving for the West. On every farm where fruit can be grown it should be raised extensively for market, and in this way the quantity of profitable labor on the farm might be quadrupled, and thus our population would be increased; and at the same time a beautiful, profitable and intellectual employment would be furnished our young men. We had a great celebration in Rochester a short time since, because it was determined to build a canal seven miles long and supply us with coal. Rochester must ever depend for her prosperity upon the products of the soil.

H. E. HOOKER planted dwarf pears and peaches in alternate rows six years since, mostly Louise Bonne de Jersey, and had obtained more bushels of pears than peaches. Thought pears could be grown as cheaply as peaches.

Mr. Fish had visited a neighbor who had a good pear orchard on a sandy loam soil. Never saw trees more loaded. Saw the fruit picked from small Bartlett pear trees some six feet high, and most of the trees produced from a bushel to a bushel and a half. With good cultivation nothing could be more profitable than raising pears.

Mr. THOMAS said people must learn to give their trees good culture. There seemed to be general understanding that trees must be neglected. Employ a laborer to hoe or cultivate the garden and grounds, and unless you give him especial directions, he will not work within six feet of a tree.

Mr. SMITH, of Geneva, saw dwarf pear trees in France as large as any one could desire,—as large as most of our standards, but they gave their trees a soil five or six feet deep, and rich.

*What form of the tree is best for the Standard Pear?*

Mr. BERCKMANS said the best plan of training was in the pyramidal form for the first ten or twelve years. After this time allow the tree to take its own course. The apple tree grows somewhat regular, but the pear tree very crooked and straggling. If the tree is allowed to attain a height of four or more feet with a single stem, and then throw out several main branches for a head, when loaded with fruit, it is very apt to break at the union of these branches with the main stem, just as we see many peach trees. Had seen many trees in Prof. MAPES' grounds entirely destroyed in this way. The tree should be allowed and encouraged to branch from the ground when young, and until it becomes well established in both root and branch. This was the course pursued by himself in Belgium, and also by Van Mons.

Mr. BARRY said there were several things to be considered in determining the proper form of a tree—the general welfare of the tree, the effects of the wind, convenience in gathering the fruit, and protection to the trunks—all these were questions that needed consideration. The ordinary method of pruning up to a single stem six feet high, and then forming the head, would not answer as well for the pear as for the apple. The exposed trunk is very apt to become injured by the sun and the frosts of our severe and changeable winters. By allowing the branches to grow from near the

ground the trunk is well protected. During high winds trees with tall stems are very much exposed. In the pyramidal form this is prevented, as the heaviest part of the tree is near the ground. It needed no argument to show that it was much more convenient to pick the fruit when the tree was grown in this form. Then, it is the natural form, for in nine cases out of ten young trees would assume this form if they had room to do so. Trees grown in this way also bear fruit earlier, and grow erect instead of leaning on one side as all high headed trees do. For these reasons Mr. B. preferred the pyramidal form for either dwarf or standard pear trees.

Mr. H. E. HOOKER would not differ much from Mr. BARRY, except he would recommend to prune up a short distance, so that the ground under the tree could be kept cultivated by the plow and cultivator. To have a tree branch from the ground was quite an inconvenience in cultivating. The pruning up should be gradual, and when done leave a clean stem of about two feet. Even then the weight of fruit will bring the branches to the ground.

S. H. AINSWORTH, of West Bloomfield, was cultivating pear trees as pyramids, branching directly from the ground; others with a clean trunk for 2½ feet, and still others with a clean stem 5 feet high. Commenced growing them 5 feet, then tried 2½ feet, and lastly tried the pyramid. The trees are all now in bearing. Preferred those 2½ feet, because they could be well cultivated, without injury to the limbs, and on this form the wind has but little effect, and the trunk he thought sufficiently protected. The greatest injury to the trunks of pear trees was caused by the reflection of the sun from the snow. The trees trimmed 5 feet high are injured by the wind. Trees that branch from the ground will bear at least one year earlier than those trimmed two feet high, and generally three years before those that are trimmed up five feet.

Mr. TOWNSEND allowed his trees to branch out at two feet from the ground.

Mr. FISH had learned from experience that it was best to let trees branch as low as possible. If it was inconvenient to cultivate, the hoe might be used a little.

Mr. BARRY thought low trees could be cultivated very easily. The weeds will not grow where the ground is shaded by branches. A great reformation had taken place in this respect. A few years ago everybody wanted tall trees, eight or ten feet high; now all intelligent men, particularly at the West, were anxious to get low headed trees.

J. J. THOMAS thought the objections to low headed trees on account of the difficulty of cultivation, not well founded. The roots extend far beyond the branches so that if the ground should not be stirred directly under them, little would be lost. Some varieties of pears it is known are very easily blown from the tree; low headed trees will in a great measure prevent this.

*What age is best for planting apple and pear trees from Nurseries to Orchards to insure success?*

T. C. MAXWELL said that when he commenced the nursery business, having no extra sized apple trees (as they were at that time in great demand), he procured some, and they were planted in his neighborhood, with the small ones from his own nursery. The result was such as to convince himself and his customers that it was folly to plant large trees.

C. P. BISSELL, of Rochester, five years since, at a good deal of trouble and expense, removed some large cherry trees to his grounds, and was so successful that he had been induced to try others, but had given it up as a bad job and hereafter all he would seek would be a young, healthy tree.

Mr. BERCKMANS said the French rule was that a tree should make all its wood on the spot where it grows, and hence a tree is generally cut down to the ground after transplanting. When Mr. B. came to this country he brought a ship load of pear trees, the best of his own and Van Mons' collections. The wood was injured on the voyage, and on transplanting he cut down to the sound wood, many to the ground. Those that were apparently uninjured were planted without much cutting; but they lingered for years and most of them finally died. Those that he cut down are now beautiful pyramids, requiring no care and producing beautiful crops.

Mr. FISH once sold a collection of trees to a lady in Pennsylvania. While delayed at Corning the mice got into the bundle and gnawed the bark off several of the trees, some six inches above the roots. He cut them down and made the lady a present of them. The present year, being in the neighborhood, he called to see the trees, and those that had been cut down were the finest of the lot.

Mr. AINSWORTH said that when he commenced the nursery business he could not persuade people to buy his small trees. One of his neighbors went on a journey with his team in search of *fine, large* trees, and returned, heavily laden with about fifty apple trees. In two years after there was hardly a tree living. He then bought small trees, and now has a fine young orchard. Nine years ago two of his neighbors, one Mr. WILSON, and the other being unsuccessful he would not name, determined to plant cherry trees. Mr. W. sent to Ellwanger & Barry's, and bought two year old trees, planted them, and they are now as beautiful trees as man ever looked upon. The other, on seeing the trees, made up his mind that he would find better trees than that, and succeeded in finding some big ones, two or three inches through. They are alive now, but little larger than when first planted. The philosophy of the thing is this; when a large tree is taken up, so many of the roots are broken off that the tree starves before new roots are formed to furnish it sustenance.

Mr. BARRY was glad to hear this question discussed. No doubt thousands of trees are destroyed by being removed too large. A young tree is checked but little by removal, and soon commences its growth. It would be well to be definite in our discussions. The question was, *what age is best*. For the pear, cherry and plum, two years was old enough, and if persons wished a model orchard, trees of one year old would be better. Apples at three years old are suitable for transplanting, though four years is not too old. Some varieties are larger at three than some others are at four years.

Mr. HOOKER would prefer two year old trees, even for a model orchard. When trees one year old are transplanted and cut back they throw out very weak branches.

Mr. BARRY had found this to be the case. A tree one year old should be allowed to grow one season after transplanting before being cut back.

Mr. TOWNSEND had transplanted pear trees of all ages from one to six years. Seldom lost a tree

of any age. Had also found cutting back one year old trees to be injurious. Thought two year old trees to be the proper age.

Mr. HOAG, of Lockport, planted fifty trees six years old, and lost about one fifth. They remained stationary for three years, refusing to grow an inch, and then started and made good trees. The ground is a heavy clay, and so stiff as to be almost unfit for culture. Where one of these large trees died he put in one two years old, and it is now the best tree of the lot, though they are all fine and bearing well.

*Can the Raspberry, Currant and Gooseberry be cultivated largely, profitably for market, and in what way? What product per acre could be obtained? In what way prepared for market? What varieties are best?*

Mr. DOWNING said the variety known as the Hudson River Antwerp was the only sort cultivated largely for the New York market. The product was from \$300 to \$800 per acre. Sold at wholesale at 10 cents a basket, and three baskets made a quart.

Mr. E. HOOKER, at 10 cents a quart, found the yield here to be about \$140 per acre. Had taken correct account of one bed containing 16 rods—one-tenth of an acre, and containing 136 hills four feet apart each way. The product was 200 quarts, which at 12½ cents per quart, would be \$25.—Charging the cost of picking and marketing, manure and cultivation, and cost of plants, use of land, &c., at fair prices, there was left a clear profit of \$14 08 on this small piece of land.

Mr. HOAG sold over one hundred quarts this season at 16 cents. Brinckle's Orange is not only the best fruit, but bears altogether the best crop. Mr. H. did not think it firm enough to bear carriage a great distance. The plant is hardy, though he found that when covered in winter a better crop is produced, and finer. The Hudson River Antwerp killed back unless covered.

Mr. ELLWANGER, from many favorable reports received from the West, was led to believe that Brinckle's Orange was better adapted to that locality than any other variety. Mr. BARRY had no doubt but raspberries could be raised for six cents a quart, but are so tender that they will not bear carriage, and therefore can be only raised largely in the vicinity of cities. Mr. HOAG and Mr. LANGWORTHY recommended cutting the berries with scissors, as they will keep and bear carriage much better when gathered in this way.

NATHANIEL DRAPER, of Rochester, had grown the Red and Yellow Antwerp on the same soil for twenty-five years. Used no manure during the time, but kept the weeds down and the canes tied to stakes. Never lost a crop, but plants taken from his beds and planted in highly manured soils have proved barren. Mr. HOOKER and Mr. HOAG had noticed that high manuring was unfavorable to the production of fruit.

Mr. H. E. HOOKER suggested that as there was now much interest felt in regard to the Blackberry, it would be well for members to give their views in regard to its value, mode of cultivation, &c.

Mr. C. P. BISSELL had an acre in cultivation.—The young plants should have good roots. The first season the branches spread on the ground, the second and third years throw up strong shoots. Should be planted in rows some eight feet apart,

and about the same distance in the rows. For training the best way is to set posts and run two wires from post to post, to which the bearing canes should be tied. In the spring cut the canes back to about five feet, and also shorten the laterals to five or six buds, or they became so heavy with the weight of fruit as to break from the cane. The blackberry fills a vacancy between raspberries and peaches. Had picked over 400 berries from one plant. After bearing is over the canes may be untied from the wires and allowed to fall by their own weight. When fully ripe the fruit was good, but persons often picked it before ripe.

CHARLES HOOKER, of Rochester, said his plants were frozen back last winter; only the tops, however, were injured. It was difficult to tell when the fruit was ripe, as it was quite sour long after it turned black.

Mr. HOAG said the fruit should hang for several days after turning black. Picked several quarts of fine fruit last week.

Mr. BARRY thought that from its tenderness it was a little calculated for shipment as the raspberry. The High Bush, or Dorchester, was of better flavor, firmer, and nearly or quite as large and productive. This at least was the character of the fruits as proved on their grounds.

C. P. BISSELL stated that several persons in his neighborhood had abandoned the Dorchester on account of its unproductiveness. Mr. DOWNING being called upon to give the Convention the benefit of his experience with this fruit, stated that the New Rochelle or Lawton was the largest and bore the best crops, the Dorchester was sweeter and of better flavor, but not so productive, and the Newman blackberry was sweeter than either, but not very productive. On motion of JOSEPH FROST it was resolved, unanimously, that hereafter the New Rochelle or Lawton, be designated as the New Rochelle.

*Each member to prepare; in the form of a ballot, a list of twelve best apples for marketing exclusively; twelve best pears and six best peaches.*

In accordance with this rule twenty-one ballots were handed in to the Secretary, and the following table shows the varieties voted for, and the number of votes each received.

## APPLES.

R. I. Greening,	19	Golden Sweet	6
Baldwin,	18	Gravenstein	6
Roxbury Russet,	17	Golden Russet	4
Red Astrachan,	14	Yellow Bellflower	4
King of Tompkins Co.	13	Swaar	3
Tolman Sweet,	13	Jonathan	3
Northern Spy,	12	Rambo	3
Esopus Spitzenburg,	12	Seek-no-Further	2
Fall Pippin,	9	Duchess of Oldenburg	2
Sweet Bough,	8	Peck's Pleasant,	2
Primate,	7	Porter	2
Cayuga Red Streak,	7	Am. Summer Pearmain,	2
Early Harvest,	6	Vandevere,	2

## PEARS.

Bartlett	19	Theodore Van Mons	4
Louise Bonne de Jersey	18	Glout Morcean,	2
Duchess de Angouleme,	18	Beurre Superfine,	2
White Doyane	17	Urbaniste,	2
Easter Beurre	16	Bloodgood,	2
Lawrence,	16	Brandywine,	2
Seckel,	15	Beurre d'Orford,	2
Vicar of Winkfield,	12	Beurre Clairgeu,	2
Flemish Beauty,	11	Beurre Bosc,	2
Beurre de Anjou,	9	Onondaga,	2
Beurre Diel,	8	Rostiezer,	2
Tyson,	8	Steven's Genessee,	2
Sheldon,	6	Osband's Summer,	2
Buffam,	5	Ananas d' Ete,	2
Belle Lucrative,	5		

## PEACHES.

Crawford's Early,	15	Old Mixon Cling,	9
Crawford's Late,	12	Geo. 4th	9
Old Mixon Free,	10	Early Purple,	2
Early York,	9	White Imperial,	2
Morris White,	5	Red Cheek Melacoton,	2
Coolidge's Favorite,	4	Snack's Freestone,	2
Large Early York,	4	Walter's Early,	2
Honest John,	3		

## AN APPLE ORCHARD.

After giving the above lists, we will add the following, from another source :

For an orchard of one hundred trees for general purposes, the Cincinnati Horticultural Society recommends the following list:

For July and August	2 Summer Rose.
" July and August	2 Strawberry.
" September and Oct	2 Fall Pippin.
" Oct. and November	4 Rambo.
" Nov. and December	5 Golden Russet.
" Nov. and December	5 Newton Spitzberg.
" Nov. and December	20 White Bellflower.
" January and February	15 Pryor's Red.
" February to April	40 Rauls's Janet.
" March	5 Newton Pippin.

We do not well see how the Early Harvest could be dispensed with. If for family use only, we should take two from the White Bellflower and substitute the Early Harvest; if near a city the number should be increased. We should take four more from the same, and instead of them, plant two Black Annette and two American Summer Pearmain, which is the only apple a person would exchange a good peach for. They are not good growers, but the delicate texture and fine flavor of the fruit fully compensate for this. The list still contains 14 White Bellflowers; we should reduce it to 8, by substituting two Fall Queens; then taking one from the Rambo, we should add five to the Pryor Red, the list would then stand thus:

2 Summer Rose.	2 Fall Queen.
2 Early Harvest.	5 Newton Spitzberg (in some localities only.)
2 Black Annette.	8 White Bellflowers.
2 Strawberry.	20 Pryor Red.
2 American Sum. Pearmain.	40 Rauls's Jannete.
2 Fall Pippin.	5 Newton Pippin.
2 Rambo.	
2 Green Russet.	

In most localities in the south-west it would be best to leave out the Newton Spitzberg, and substitute some other, in which case we should take the *Wine Sap* or *Jonathan*, or in case a sweet apple is wanted *Red Winter Sweet*. This list will give a good supply of apples at all seasons, and the season may be prolonged by adding 5 *Little Romanite*, which though by no means a fine fruit is so good a keeper that it cannot well be dispensed with.

**COUNTY SOCIETY EXHIBITIONS.**—The County Agricultural Societies of Maryland and the adjoining States, appear to have been unusually well attended and successful this fall. We have received list of premiums of several of them, and would be glad to publish them in our pages, but for the space which they would necessarily occupy, to the exclusion of matter of a more general character. As the lists are published in detail in the local journals, we deem it unnecessary to insert them in the Farmer—though we are always happy to receive any general descriptions of such Exhibitions, and incidents of interest connected therewith.

From the American Farmer's Magazine, for Nov.

## MANURES, AND THEIR GENERAL APPLICATION.

The present is the season when farmers in general, and good farmers in particular, scrape up and remove all manures, and give them immediate application in top-dressing, or pile it for future use. How far either of the above ways of disposing of it, are pursued with the strict economy of good husbandry, we shall not attempt to decide. Our object, just now, is to tell of a course we have for several years adopted, and which we have found productive of very good results.

Our manure for next year's corn crop.—This is made up of such as remained and accumulated in the barn-yard through the summer, and is composed of the droppings of the animals and such other material as comes to hand for the purpose. We draw it to the ground where it is to be used the following year in September, and make it into a pile as nearly conical as possible. The object of this is, to keep it compact, and in a shape to shed rain, an object we consider as important in a manure-stack as in a hay-stack. In building our manure heap we have plaster at hand, and every three or four loads, (cords) we spread a coat of plaster over the whole, and when the stack is finished we give it a covering of plaster of the eighth of an inch in thickness, and here we leave it until spring, to find it in a beautiful condition at planting time, for putting under the hill.

For top-dressing meadows, we spread the same kinds of manure evenly upon the surface, as near as we can before the fall rains, at the rate of four or five cords per acre. We then give a coat of plaster at the rate of fifty pounds (it looks small in quantity) per acre, in this case the two ingredients act together, are actually worth more than double the quantity of either would be if used separate.

The foregoing system of preparing and applying manures we have found to be a decided improvement. We believe it is generally admitted that the action of plaster (gypsum) is greatest on newly stocked or recently manured lands. This being so, the more the manure and plaster are incorporated the more each will help the other, and the greater benefits will result. When they are spread and sown on grass lands at the same time, then their action must be in close connection, and if put on when the rains of autumn come into their aid their effect will be early and strongly marked in the coming spring.

We might carry our experience one step further. When manures are to be applied as top-dressings, on grass lands, the quantity may be greatly increased without any material diminution of quality, by composting muck, or indeed almost any absorbent soil in the proportion of one half. Indeed, we have top-dressed by simply taking earth from the way-side, often removing the thin sod, and spreading it over meadow, in the same proportion we would other manures. If its fertilizing properties were not so great as guano, it possessed this quality,—it covered the exposed roots of grass and furnished them soil in which to throw new fibres and of course contributed to a more abundant future growth. Where manures are scarce, it is certainly worth trying.

Yours, truly,

WM. BACON.

RICHMOND, Oct. 4, 1857.

### NORTH CAROLINA STATE AGRICULTURAL SOCIETY.

At the annual meeting of the society, held at Raleigh, the following proceedings were had:—

The Hon. Thos. Ruffin, President, in the chair. Hon. Abraham Venable entertained the Society for about half an hour with an interesting statement of his experience with respect to the chinch bug, Oregon pea, guano, &c.

In regard to the Oregon pea he said that if it were sown the last of May or the 1st of June it would make a good fallow for wheat, but it must be sown thick. The Oregon Pea made very good hay for horses and cattle, but he regarded the Shiny Pea or Black Pea as more desirable than the former.

Mr. Burgwin, of Halifax, requested Mr. Smith of Halifax, to give the Society some information in regard to the cultivation, &c., of the Chinese Sugar Cane.

Mr. Smith arose, and stated that he planted his cane in rows, 3 feet apart, leaving 3 or 4 stalks in a hill. About the first of September the cane was stripped of the fodder and the seed gathered, and then the juice expressed by means of a rude mill which did not get much more than half of the juice it contained. The juice thus expressed he boiled with lime water in order to clarify it. He said that 168 gallons of the juice was expressed from about an acre of stalks. If a good mill had been used he thought 250 or 300 gallons might have been got from the same stalks. It produced over 25 bushels of seed to the acre. He thought that a larger quantity of fodder might be made from a certain number of stalks of Indian corn than the sugar cane would produce. Mr. Smith stated that 8 gallons of the juice, he thought, was sufficient to make a gallon of good syrup. He stated that it was a most excellent food for hogs, and that they ate it with greater avidity than Indian corn. He thinks it will become very profitable.

Mr. Burgwin said that he thought the sugar cane would be more profitable as fodder than for any other purpose. His idea is to sow the seed thick, and when the cane is about knee high to cut it down with a reaper. When dry it was better for horses than oats.

Judge Ruffin also spoke in favor of the Chinese Sugar cane as an article of food for stock.—On motion of Mr. Smith, of Halifax, the election of officers was proceeded with.

The President was urged to accept a re-election and finally consented, and was re-elected by acclamation.

All the Vice Presidents were also elected by acclamation—W. D. Cooke as Secretary, and J. F. Hutchins as Treasurer.

The exhibition of the society took place at Raleigh, and the premiums awarded. Among the premiums for Agricultural Implements, we find several for our fellow citizens, R. Sinclair & Co., Hussey for his Reaper, and Montgomery & Bro., for their Fanning Mills.

“Too many of us are practicing to live by buying and selling and not enough by producing. We prefer a big slice of what others have earned to earning something ourselves, to live by our wits, rather than by our energies, to be sharp rather than industrious.”—*Plow, Loom and Anvil.*

### NATIONAL EXHIBITION OF HORSES.

An esteemed correspondent, who was present at this exhibition, gave us some particulars for our last number in relation to it. The following more extended notice, we copy from the last Vermont Stock Journal, containing as it does the names of many of the best stock raisers at the North, with whom some of our readers may desire to correspond:

The National Exhibition of Horses at Springfield, brought together some fine animals, and the show was on the whole very good; although there were fewer first class animals than we expected to see. None of the celebrated horses of our State were there except the “Old Morrill Horse.” Among the stallions of seven years old and over, “Henry Clay,” owned by Rogers & Co., of Albany, N. Y., was much admired on account of his fine style of action and symmetry of form. “Hampton,” exhibited by N. R. Washburn of Springfield, Mass., was a fine horse and a sharp trotter;—“Sherman Morgan,” the only stallion now living, sired by “Old Sherman,” attracted much attention. He is 22 years old, but still lively and active.—He is owned by Mr. A. J. Congdon, of Lancaster, N. H.

“Lone Star,” owned in Suffield, Conn., was a great favorite with the crowd, and we thought ought to have ranked higher with the committee than he did. In the class of 4 to 7 years, there were some fine horses, and two of them, “Tom Carpenter,” and “Columbus, Jr.,” we think will yet be heard of in the thirties. Why the former did not receive a premium we could not understand. “Green Mountain, Jr.,” exhibited by Erastus Hubbard of Montpelier, was a fine horse, and exhibited in a high degree the showy qualities, for which the family is so celebrated. E. Foster Cooke, of Rutland, exhibited a very fine horse, “Thomas Hamblin,” sired by the celebrated “Rattler.” “Petersham Morgan,” exhibited by Francis Twitcheil, of Templeton, Mass., and “Neal Dow,” exhibited by Messrs. Strong & Lewis, of Northampton, Mass., were very fine animals—the latter attracted much attention by his fine action and thorough training.

Among the colts, 2 and under 4 years, were several very fine animals. “Hector,” exhibited by R. S. Denny, of Clapphill, Mass. “Young Flying Morgan,” exhibited by Amos T. Town, of Hardwick, Mass., “Trojan,” exhibited by S. R. Bowne, of Flushing, L. I., and “Lone Star, Jr.,” exhibited by William J. Mallory, of Sandy Hill, N. Y., seemed to be the favorites.

The show of thorough breds was extremely small. The imported iron grey stallion “Sultan” was a fine horse, and was much admired. He is owned by Messrs. Phillips & Hammond, of Brooklyn, N. Y.

The bay mare “Jewel,” exhibited by Wm. B. DeWolf, of Bristol, R. I., was in our judgment a jewel indeed, and hard to beat, but the committee said she was not up to the standard for mares of her class.

The show of single driving horses was very good, and embraced a large number of trotting horses.

Of matched horses there were twenty-one entries, some of them excellent teams.

Among the most attractive features of the exhibition

bition was Mr. Wm. C. Langley's splendid team of six in-hand, beautifully handled by Wesley Earle, the celebrated colored driver; and Mr. Brown's old team of four in hand. The aggregate age of the four was 92 years, and yet they trotted together a good deal inside of 4 minutes. These teams were both from New York.

Among the breeding mares and colts were the two celebrated animals "Sontag" and "Highland Maid," each with foals by their side by "Ethan Allen."

The committee had much difficulty in deciding between them, but finally awarded the 1st premium to "Sontag," and the 2d to "Highland Maid."

#### EXPERIMENTS

A subscriber in Mobile, Ala., sends us the following statement, from a late copy of the Daily Register, of that city—and promises to send us the result on the future crops of the same experiment:

I send you the result of an experiment commenced last spring to ascertain the relative value of three of the most commonly used fertilizers.

I selected a lot of two acres, of uniform texture and character, which had been used for several weeks as a cow-pen; and which had been limed the year previously with one hoghead of refuse lime.

The lot was deeply subsoiled, the plough being drawn by two yokes of oxen. On one half of it (one acre) were sowed one barrel of ground plaster and one sack of salt; this last to furnish soda in the place of potash, in which our silicious soils seem to be deficient. The idea was that the lime previously put on the land, had become a carbonate, and this in connection with the muriate of soda, (common salt) would furnish carbonate of soda and muriate of lime, both very soluble salts, and well adapted to promote the growth of the next crop.

The acre thus prepared by lime, plaster and salt, was divided into three parts; on one of which was sowed broadcast 100 lbs. Peruvian guano; on another, 130 lbs. Mapes' improved Superphosphate of Lime; on the third, 300 lbs. Mexican guano; these amounts representing equal value of the three articles, delivered at my place, and costing eleven dollars.

The whole lot was then carefully and deeply ploughed with the same team, harrowed and laid off in rows four feet apart each way; the manured acre so planted as to keep two stalks to a hill; the unmanured left with but one. The cultivation was the same throughout; the corn planted was Ridgeway's, kindly furnished me by Messrs. Pomeroy and Marshall, for the experiment.

Now for the result. The corn has been carefully gathered and measured within a few days. The unmanured acre produced 25 bushels; the manured 36; of this, the portion to which was applied Peruvian guano, gave 14 bushels, that on which was put Mapes' improved Superphosphate of Lime, 13 bushels, that where the Mexican guano was used, 9 bushels. Difference, 11 bushels; cost, eleven dollars.

As the valuable element in both Mexican guano and Superphosphate of Lime, is the phosphate of lime; and this is not exhausted for many crops, I suppose that the experiment can be fairly estimated only by observing the next and succeeding crops, under similar treatment and culture, and this I mean to do.

#### THE PRICE OF COTTON.

We have in another column presented some facts in relation to the present commercial difficulties, and their effects on the prices of cotton and grain. The able editor of the "Cotton Planter and Soil," in anticipation of the publication of his own paper, publishes some timely hints to the Cotton Planters of the South, through the Columbus (Georgia) Enquirer, from which we make the following extracts:—

"This commercial difficulty, in the production of which you have had no agency whatever, has not only in a few weeks' time reduced the price of your cotton from 15 cts. to 6 or 8 cts. per lb.; but it has forced the banks of the whole country to suspend specie payments, and if forced into market in any great quantity, could not be sold at any price.

"There has been doubtless at the North and North-west, where this thing had its origin, just cause for it, among the fancy stock-jobbers and wild land speculators; but here at the South there has been no legitimate cause for such overwhelming disaster in the commercial affairs of the country. With us, in the plantation States, it is the result entirely of a loss of confidence, and our banks have therefore acted wisely in the policy of a general suspension—not that any right minded man could for a moment justify bank suspension in the abstract. What then is the proper policy for you to pursue, with regard to your cotton, which is an absolute necessity for the well doing of all the industrial pursuits of the civilized world? Manifestly to suspend its further sale for the present. It is worth, as shown by the Liverpool quotations, a price, in money, that will compensate you handsomely for the labor and painstaking expended in its production and preparation for market. Withhold it then, every bale, from sale for 60 days or less perhaps, and it must necessarily command its proper valuation in money, in the markets of the country. This is all you want, its fair and proper value in money—this is but your right and nothing less; if you will, you may have it. But you must exercise, as planters, a community of action, uniform, prompt, energetic and determined, without fear or faltering—because you have naught to fear. Your cotton is, as before said, an absolute necessity, not merely affording the raw material for manufacturers, or the fabric for the necessary wear of civilization, but the daily bread of millions is alone dependent on the speedy going forward of your cotton. Be firm then; you have but to make a manly stand, and demand a fair price for your cotton to get it. I shall not presume to dictate to you, what we should ask in so many cents per pound, but this I tell you, the Liverpool quotations to-day (and they are wont to rule us, especially when the scale of prices stand adverse to us) warrant 14 to 15 cts. in our seaport markets. Stand then, square up to your interest now, as true men and wise men, and by the first day of January all will be right again—the market active and the price fully remunerative."

"The duty of 'paying small bills' at this time is properly and warmly urged in the newspapers."

There are not many institutions which have smaller bills than ours, and consequently we can most heartily concur in the propriety of the recommendation.

[From the Baltimore Patriot.]

# **SYRUP FROM CHINESE SUGAR CANE—A SAMPLE FROM CARROLL COUNTY, MARYLAND.**

We are indebted to the kind attention of our friend, AUGUSTUS SHRIVER, Esq., proprietor of "Content," a most desirable farm in Carroll county, near Westminster, Md., for a jar, or sample, of Syrup, manufactured from the Chinese Sugar Cane, grown this season upon his own farm. We have tasted the article, and so far as our judgment goes, feel no hesitation in pronouncing it a delicious Syrup. Those wishing to examine this new and important product, are invited to call at our office, where it may be seen. It possesses a substantial body, and in all respects is a complete substitute for molasses, or Syrups made from any other kind of Sugar Cane.

From the evidence before us and the known intelligence and sound practical judgment of our Carroll county friend, we can but agree with him in expressing the opinion that the "introduction of the Chinese Sugar Cane will produce an era in the agricultural history of this country."

We value the sample sent us more highly because it is a first effort, giving forcible indications that from small beginnings great and satisfactory results may eventuate. The rude process by which the sample here noticed was manufactured, and other interesting facts connected therewith, are more minutely given in our correspondent's letter, which we most cheerfully copy, as follows:—

FARM CONTENT, CARROLL COUNTY, Md. }  
October 5th, 1857. }

Messrs. Editors—I send herewith a sample of Carroll county syrup, manufactured from the Chinese sugar cane by myself, which you will perceive is not a bad beginning for this latitude. I planted about one fourth of an acre, which received no especial attention, as I was not very sanguine of the high qualities claimed for it, and, indeed rather looked upon it with suspicion, as being among the class of humbugs that are every day being cracked up for the purpose of putting money into the purse of sharp ones. The fore part of the season being very wet and backward, my other crops required so much of my attention, that it received but one good dressing; after harvest, however, it began growing very luxuriantly and made a beautiful growth, the average height being about twelve feet. It ripened sufficiently last week to mature the seed. I had constructed a rude mill, on the principle of the old fashioned cider mill, which only extracted a portion of the juice, which was fully proven by running the stalks through the mill a second time, when at least half as much juice was extracted as on the first grinding. Being somewhat pressed for time, I only passed it once through the mill; and by this simple process and by boiling it down in our common household kettles, succeeded in making thirty gallons of syrup such as I send you, which by use we find to answer all the purposes of the best molasses in family use. I found the juice to yield about one sixth of its quantity in syrup, and, from some selected cane, the reduction was less than one-fifth.

As to the question of making sugar of the Chinese cane, or its granulating properties, which is a question controverted in high quarters, I may be permitted to give my humble experience on that point. In a first experiment on a small scale with

some well matured cane, I reduced the syrup to such a consistency as hardly to admit of its being poured from a common tumbler. After being set aside for a few days, on examination I found the spoon which had been left in it and the side of the glass coated with perfectly formed crystals of sugar of a delicious taste, and if I had had the proper knowledge to carry the process through, would have resulted, I have no doubt, in producing sugar.

Under all the circumstances I consider my experiment as eminently successful, as my mill and boiling arrangements were of the rudest kind, and having not the slightest knowledge myself of the process of making either molasses or sugar. I am fully satisfied that the introduction of the Chinese sugar cane will produce an era in the agricultural history of this country, and place a delicious article of syrup at least within the reach of every farmer in the country.

As a forage plant also, it will be of immense value, as all kinds of stock eat it ravenously, and I have no doubt will be found highly nutritious in its properties. The seed are eaten freely by hogs, poultry, &c., and I have no doubt, will be found valuable feeding for stock. Its culture is simple in the extreme, and I think will be found to be hardy, and subject to very few casualties of any kind. Yours, truly, AUG. SHRIVER.

## **A NEW ANIMAL FOR FARMERS.**

A valued friend and correspondent, in New York, informs us, upon authority which is undoubted, that a naturalist in South America has undertaken to introduce into the United States from one hundred and forty to one hundred and fifty Llamas, the well-known animal of Peru and Ecuador, which are used there as beasts of burden, and which produce the wool, or rather hair, called alpaca. The adventure, has been entered into by a very responsible house on the south-west coast of South America, who have collected the animals and chartered a vessel to transport them to Panama, whence they will be conveyed to New York, where they are expected shortly to arrive, and will be offered for sale.

These are very hardy, docile animals, capable of carrying over the rockiest portions of the mountains of South America about three hundred pounds weight each. They are easily nourished, and it is believed that though coming from a much warmer climate than our own, they will stand our winters as well as our sheep; and be equally or more profitable in the production of wool. We shall keep our farmers apprised of the arrival of the first importation, and, if we are furnished with it, with the address of the party or house, having the disposal of them.—Ger. Tel.

By an advertisement in this month's Farmer some of these animals are offered for sale.

INDIAN ANTIQUITIES.—We have received from Wm. H. Tilghman, Esq. of Talbot Co., three Darts, made of different colored flint stone of the hardest character, found near the Wye River.—We have handed them to the Corresponding Secretary of the Maryland Historical Society, as a suitable depository for such relics of the aboriginals of our State.

# AMERICAN FARMER.

Baltimore, December 1, 1857.

## TERMS OF THE AMERICAN FARMER.

Per Annum, \$1 in advance—6 copies for \$5—13 copies for \$10—30 copies for \$30.

ADVERTISEMENTS.—For 1 square of 8 lines, for each insertion, \$1—1 square per annum, \$10—larger advertisements in proportion—for a page, \$100 per annum; a single insertion, \$15, and \$12 50 for each subsequent insertion, not exceeding five.

S. SANDS & WORTHINGTON,

Publishers of the "American Farmer,"

At the State Agricultural Society's Rooms, 128 Baltimore-st. Over the "American Office," 5th door from North-st.

## THE AGRICULTURAL COLLEGE.

It will be seen by reference to the proceedings of the Board of Commissioners, that the stockholders at the meeting called for the 17th Nov. failed to elect Trustees in consequence of the deficiency of cash in hand, to enable them to comply with the terms of the charter. Another meeting is now advertised for Thursday the 17th of December, by which time it is hoped and expected that a sufficient amount will be received. The Trustees will then have time enough within the limit of the law to comply with its terms.

We take leave to call the special attention of the stockholders to the circumstances of the case. Under an impression that notes at short dates would be readily used as cash in the purchase of whatever property the Trustees might select for the College, the Commissioners as a matter of accommodation allowed their agent to receive from subscribers in settlement of their subscription, notes at three, four and six months. Being further advised, however, it is found that while the Trustees may, there is no doubt, so use these notes, the Commissioners are not authorised on such a presumption to predicate their action in the election of Trustees—the law requiring them to have in hand twenty-five thousand dollars in cash. It is therefore, very important to the success of the enterprise, that those who have already given their notes should as far as possible redeem them in cash, and that others should in the same way settle their several accounts.

By the terms of the charter, the Trustees must have been elected and the purchase of the property made by the first day of February next. It will be seen that the Commissioners, have invited those who may have property to dispose of that may suit their purposes, to make proposals to the Trustees, stating number of acres, location, &c. and terms, in such manner, that the acceptance of the offer by the Trustees will make the contract. This arrangement will very much facilitate the Trustees in choosing a site, and there will be no difficulty it is believed in complying strictly with the terms

of the charter, if the subscribers to the stock, will realize the importance of meeting promptly the call which is now made upon them.

The Commissioners deprecate the necessity of calling again upon the Legislature even for the small favour of a few months extension of the time originally allowed. They appreciate the confidence and liberality of the State in entrusting them with the high charge of laying the foundation of this noble Institution. They accepted the trust with the honest intention of abiding by its terms, and they mean to do so in good faith, and in every point, if possible, without asking from the Legislature the variation of a letter from the original provisions of the charter. They feel that it is due to themselves and to so important a trust, to adhere to this determination, and will use every effort to do so. We beg that the stock holders, who by the terms of their subscription, are now equally bound with the Commissioners, will by responding at once to their call, put it in their power to maintain so commendable a determination.

## SUGGESTIONS ON HANDLING TOBACCO.

Let us say a few words to young planters on the proper handling of their tobacco crop. They should bear in mind that its appearance on coming out of the hoghead very materially affects its selling value. A sample carelessly and badly handled will lose a dollar or more on the hundred as compared with that of the same quality neatly handled throughout. We say neatly handled, having no reference to the laborious methods which some small planters occasionally practice of smoothing each leaf of very fine tobacco and tying and pressing it with the utmost care, but meaning to recommend only that degree of care which takes no extra time, but which may be practised by every hand upon the farm, if he is properly trained to it, and which it should be the duty of the manager to see exercised. And as we make this remark let it be suggested likewise, that it is too common a fault with managers who are not disposed to trifle, to confine their attention too much to a mere labourer's work of a day's stripping. If he has a number of hands under him, it is as important, as in any other branch of his business, that he supervise strictly their work, to see that it be properly done and to see that every young hand learns to do his work well before he undertakes to work fast.

The work of stripping should be begun early. In the press of Fall work, there is too much disposition to neglect a stripping season, and very little of this work is usually done before Christmas. While the tobacco is safe in the house, and some of the corn still in the field the manager can hardly persuade himself that he ought to be "stripping." A little foresight however would convince him of the propriety of it. The real question is between the value of his time in the Fall and the Spring. The

crop must be got ready for market. The work done upon it in the fall postpones for a few days the putting away of the corn, and the other various preparations for winter which it is considered desirable to have completed by Christmas. The same work in May or June takes time of the utmost value in the preparation for, or pitching the most important crops.

It is desirable to begin early that the whole work of stripping, bulking, and packing be got off hand before the press of spring work, that it may interfere as little as possible with that. It is desirable to be in market early, because the early markets are frequently beat, and the planter has at any rate his choice. It is desirable because he is very apt to want the money early, or what is more likely he will have drafts to meet which no punctual man will neglect. Let the planter bear in mind that he can only work in his tobacco when the weather suits, and that there may be very little weather to suit him from Christmas till March. Another consideration is that the crop loses in color and in weight probably, while hanging in the house.

In taking down the tobacco for stripping, never allow the sticks to be thrown down; if it is high up, let there be hands enough to hand it from one to the other, till it reach the one who is to take it off the sticks. Let this be done carefully, so that the leaves be not unnecessarily torn and mashed.

The manager should arrange the hands so that they may be, (especially the younger ones) as much as possible, under his eye, while he is engaged in the work himself, as he will, rather be than be idle; but as we said before, he should not be so engaged as to prevent his going round the house to see how the work of each hand is done. If he is stripping the "seconds," and those who strip after him are depending on his work for a supply, his time will be too much engrossed.

Every plant will have three and sometimes four qualities of tobacco, and the work of culling should be entrusted to the most careful and experienced hands, that the "seconds," the ragged, torn and bruised leaves near the butt first, and next the finer qualities of sound and well cured leaves of yellow or red, may be taken off, leaving the darker coloured to be taken off by the younger strippers. The bundles should be neatly tied. This can be easily learned, and when the habit is well formed it will not interfere with the despatch of work. Never allow the bundles to be thrown down; but let each bundle as soon as tied, while held in the left hand, be pressed against the breast with the right hand spreading the leaves out at the same time, and giving it the fan-like shape which will show it to advantage. If this is properly done and the bundles carefully laid down, there will be no difficulty in preserving this shape through all

the subsequent operations till the final packing; otherwise it is very difficult to give it this appearance, and no planter need be told how important it is to have the sample drawn from the hoghead, well displayed.

The bundles should not be very large or very small, a bundle of pretty good size shows better than a small one, and labor is saved in tying, but objection is made to very large bundles.

The stripped tobacco should not early in the season be put into large bulks; but two rows of the bundles should be laid tail to tail, lapping a little. It will lie safely in these parcels until towards spring when it may be put in large bulks of four courses, and well pressed down. These bulks after a week or two, especially if the weather becomes warm, should be frequently examined by lifting them at different parts and putting the hand in, or drawing out a bundle or two to examine its condition. It is not necessary as some suppose that the tobacco should get warm in the bulk, in order to have it properly "conditioned." When it gets "high" in the bulk, that is very soft and damp, it is approaching the point at which it will heat and be materially damaged. Let it now, without waiting for it to get sensibly warm, be shaken out and hung in the house upon sticks until thoroughly dried. After this it is in "condition" to go into the hoghead, and may be taken down the first damp spell and packed hard in large bulks; the man who puts it down kneeling upon it and packing as close as in the final packing. These bulks should be weighted down and covered over to prevent as much as possible their drying, and the tobacco can be transferred from there to the hogheads whenever it may suit. If on opening the bulks for packing, any portion of the tobacco shall have got warm or high, it is an indication that it had not before been sufficiently "conditioned," and all such must again be exposed to the air. No bundle should go into the hoghead while the head is soft; that is when the stems in and near the tie yield without cracking when bent. There is no occasion for the planter having his tobacco "stayed," when it comes to market, to go through the waste and damage of re-packing. It is his business to know when it is in condition for packing. A good judge can tell this even by the smell. And he should never from too great hurry to get into market, be tempted to pack before his tobacco is in order. If he does not lose by it, the purchaser will, for no tobacco will keep for any length of time in the hoghead, which has not been thoroughly conditioned.

Hogheads should be prepared during the winter, plank for heading obtained, and every thing got in readiness so as to avoid unnecessary delays.

FAIR.—The interesting report of the proceedings of the Fruit Growers' Association, was intended for our last. It will be read with profit by all engaged in fruit culture.

## APPLICATION OF MANURE TO THE SOIL.

What has been improperly termed "*Dr. Baldwin's System of Manuring*," has been frequently pressed upon the attention of the senior editor of this journal, and his opinion more than once asked of its efficacy. Thus far he has refrained from expressing any direct opinion in the premises, and contented himself with giving such directions to his readers, as he thought infinitely better adapted, in the application of manures, to the permanent improvement of the soil than would be the application of them on the surface, exposed to the action of the weather and the consequent loss of a great portion of their ammoniacal gases, which by the bye, constitute the most important element of manure in promoting the growth of plants; and is, in fact, the true measure of the value of manures, and is so considered by nearly all good chemists as well as intelligent practical farmers. What is it that gives so much greater commercial value to Peruvian guano, over those kinds whose greatest recommendation is, that they have a large portion of phosphates in their composition. Why, simply because the former are rich in the elements of ammonia, and that the latter, by exposure to rains, heat and moisture, have been deprived, in the process of decomposition, of their ammonia, and thereby rendered to that degree less valuable.

With regard to surface manuring, the property of ownership does not belong to Dr. Baldwin, it was started in England more than a century ago, even before Gurney undertook to practice on it, and in this country it was recommended by Mr. Garnett, and by Mr. Botts, long before Dr. Baldwin undertook to be its patron. Knowing these historical truths, we could not, therefore, give Dr. B. credit for that which belongs to another long before he was born. From respect to the Dr.'s feelings, and those of his friends, who have set up the claim for him, we have thus far remained silent; but as we have been urged to give our opinion, and promised to do so, we now say, that what we now copy conveys our views so perfectly as to save us the trouble of writing an article upon the subject. We copy from "*Morton's Cyclopaedia of Agriculture*," one of the best works ever published on the various subjects connected with farming.

## APPLICATION OF MANURE TO THE SOIL.

"The quicker farm-yard manure is buried the better. This is a maxim that holds good every where, and under every circumstance; because, when once covered up by three or four inches of earth, it is safe from all risk of being lost, as the soil, according to Mr. Way's experiments, has both a physical power of retaining ammonia, while at the same time it yields up readily to the growing plants."

"The wasteful practice of spreading manure on the surface of the soil, and allowing it to lie bleaching for weeks, and even months, before being ploughed in, is still carried on in some counties of England, and stoutly defended by hosts of clay-land farmers.

If the perpetrators of such an enormity be right, science is at fault, analysis is an illusion, and ammonia and all its kindred a family of imposters. The practice in Syria of making the dung of animals into cakes, and sticking these upon the walls of their houses, to dry in the sun preparatory to their ultimate destination of being burnt as fuel, is not much more wasteful than spreading out farm-yard manure to the winds, rains, and sun for months together. A farmer who imports his ammonia from the Chincha islands, and dissipates to the four winds of heaven that furnished by his own farm, is nearly as wasteful as he would be were he to give away his straw for nothing, and to purchase from others what he required for his own use."

## SPREADING MANURE.

"This operation is either performed broad-cast or in drills. The former method is generally adapted in manuring for corn [grain] crops, or in winter manuring for spring green crops; and the latter mode is almost universal in the cultivation of root crops of all kinds. When to be spread broad-cast, the manure is laid down broad-cast in parallel heaps every five and a half or six yards each heap, when spread, occupying a space equal to the square of these numbers; and as these numbers are respectively the square root of an English square perch and a Scotch rood, the number of heaps to an acre, will in both cases be 160; and this sum, divided by any number of cart-loads, will give the number of heaps to be drawn from each cart. Thus if it be wished to lay on manure at the rate of 16 cart-loads, per acre, the number of heaps will be  $160 \div 16 = 10$  heaps per cart-load. If each cart-load contains 15 cwt. of manure, then each heap will be 15 cwt., which multiplied by  $160 = 12$  tons per acre.

"Broad-cast manure should be spread and broken down as evenly as possible, and to effect this, three people should work at two rows of heaps; that is, two throwing out the manure equally over the surface, and the third breaking the lumps and covering all blank spaces. The dung should be ploughed in as quickly as possible, and if long and rank, a boy or woman should go behind each plough to draw it into the open furrow. The expense will not exceed 8d. per acre, and is well repaid by the more perfect covering of the manure besides rendering it less liable to be dragged out by the harrows, if a corn crop is to follow."

"The most convenient mode of applying manure in drills, is to make each cart-load proceed along every three drills, and to pull it out without stopping the horse. If however, a large dose of manure is given, or if it be short, it is better to stop the horse every five or six yards, and lay it down in small heaps; as no man, however active, can draw a great quantity of short manure evenly out when the horse goes on without stopping."

"This plan of laying down the manure in the drills does not answer well on hilly ground, because whether the cart goes up or down, the raised portions of the drills are sure to be broken down or destroyed. The best plan, therefore, in such cases, is to mark off the field into small parallel divisions every five yards with a single plough furrow, lay down the manure as if in broad-casting, and then to have it carried and placed in the drills as fast as they are made."

The preceding remarks which, we copy from Morton's Cyclopaedia of Agriculture, in relation to the application of manure coincide precisely with

our own views long entertained and profitably practiced upon more than 20 years ago.

Sir John Sinclair, says that mixing manures with the soil is the best system to be adopted in all cases where it is necessary to enrich a field.

The whole course of Sir Humphrey Davy's article upon manure and manuring, enforce the propriety of burying organic manure as speedily after its removal to the field as possible, to prevent loss from evaporation.

Judge Buel in his *Farmers' Companion*, in a very able Essay on manures, holds this doctrine:—

"Stable and fold-yard dung is most profitably applied in an unfertilized, or partially fermented state, and to hoed and Autumn ripening crops.

"Fermentation diminishes the fertilizing properties of manure. If this fermentation takes place in the soil, the gases, the volatile portions which first escapes from the putrifying mass, are retained in the mould, and serve to feed the crop. If fermentation takes place in the yard, or upon the surface, the gases are wasted, and the dung undergoes further loss from the rains which ordinarily leach it. Long manure should be spread broad-cast, and well buried by the plough."

We could pile authority upon authority for upwards of a hundred years, in support of our views in relation to the application of organic manures, but it appears to us that such labor would be unnecessary to sustain a proposition so consonant to reason.

#### ARABIAN HORSES.

The beautiful Arabian mares exhibited by Mr. McDonald, at our late Cattle Show, excited universal admiration. Mr. Prime, in his works, "Boat Life in Egypt," and "Tent Life in the Holy Land," makes frequent mention of the Arabian horses, so famous for their fleetness, endurance, beauty and docility. He says the Arabs prefer the mare to the horse, on account of her superior power of endurance. They trace their genealogy by the mother, and not as we do by the sire. The favourite tradition is, that they are descended from the five mares of the Prophet Mohammed, and that these came originally from one stock, to wit, the Kohailah. The finest breeds are to be found among the Annazer and Shaumar tribes, east and south-east of Damascus.

The value of an Arab mare is not to be estimated in gold, since no amount of money will purchase one of the pure blood. Money being of little use to the Arab, but his mare, in his peculiar habits of life, of the utmost value.

The color of the Arab horse varies, being most frequently white, or light chestnut. They are not large—rarely over fourteen hands high.

It is only by accident, says Mr. Prime, that an Arab horse of pure blood is obtained, so that out of hundreds of horses imported into England and America, until within the past year, those of pure blood have been very rarely obtained.

#### PRESERVATION OF FARM-YARD MANURE.

In the July number of our Journal, we reviewed an article on the "Composition of Farm-Yard Manure, and the changes which it undergoes, on keeping under different circumstances," copied from a number of the Journal of the Royal Agricultural Society of England, from the pen of Professor Voelcker.

In speaking of the 25th proposition which Professor V. laid down, and which were in these words,—

"25. The most rational plan of keeping manure in heaps appears to me that adopted by Mr. Lawrence, of Cirencester, and described by him at length in Morton's Cyclopaedia of Agriculture, under the head of 'manure.'"

We said: "Of the 25th we cannot speak, not having read the article he speaks of." Since then we have obtained the work, and take pleasure in copying it for the benefit of our readers, as we believe it a most excellent plan to preserve the virtues of manure.

"MANURE HEAPS.—"There being few steadings where the accommodation is sufficient to hold all the manure until wanted for application to the land, it is necessary and particularly convenient to cast it out to the more distant fields, and to make it up in large heaps. Wherever this is necessary, the cart should also be driven upon the heap before being emptied. By so doing manure is consolidated, air is excluded and fermentation prevented. In finishing the heap, the ends should be raised nearly on a level with the centre, which is easily done by a little attention on the part of the carter. These portions unavoidably left low at both ends for the cart to get on and off the heap can be raised on a level with the rest by backing several cart-loads, tilting them up, and throwing up the manure with forks. After this the whole earth should be covered with earth from the sides, three or four inches thick, which should be well beaten down with the back of a spade. Road-scraperings when they can be got conveniently, are even better than common soil, as they are in a very minute state of sub-division from the grinding and treading of cart-wheels and horses' feet, besides always containing considerable quantities of manure dropped on the roads. If these are sufficiently wet to beat into a plaster on the heap, so much the better, as the surface will thereby be more hermetically sealed, both within and without. In addition to all this, the whole surface may very profitably be sprinkled with sulphuric acid, so that any ammoniacal gas that may escape through the earth may be at once arrested by this useful agricultural detective, whose affinity for fugitive alkalies is altogether insatiable. Dissolved bones, having a sufficiency of free acid, may also be employed for fixing ammonia, and if the manure be intended for turnips or mangold wurtzel, it is an excellent plan to mix a few cwt. through the whole heap.

"The site chosen for these manure heaps should be as sheltered as possible, in order to prevent the surface from becoming too dry. An excavated site, built on three sides, with a wall four feet high, is decidedly the best mode of preserving manure in a field; and were every field on a farm

which may not be adjacent, and therefore not easily manured from the homestead, furnished with a pit of this sort, there would be no risk of loss from evaporation or fermentation, provided the top and open side were covered with earth."

"Before leaving this subject, we may state that no weeds in which the seed have ripened and are still remaining in them, should ever be mixed with farm-yard manure, as these seeds are sure to vegetate when placed in the soil again. Couch grass may be so employed, but the stolons take a long time to become completely rotten."

"Potato stalks and farm-yard manure, make an excellent mixture for raising turnips, and if possible they should either be taken while green to the straw-yard to be trodden down and mixed with the manure there, or mixed up with manure in the fields and covered with earth. Turnip tops, if not ploughed in green, should also be treated in the same way. On sharp dry land, where the quality of the grain is generally good, turnip tops make excellent manure for wheat and barley, and this is very generally the mode of using them on hard land farms, but on soft soils they produce a coarse and inferior sample."

#### COTTON AND GRAIN.

In our last we noticed the fact, that the derangement of the currency and the stagnation of business of every description, had operated deleteriously upon the great staples of our country, particularly upon grain and cotton. The following paragraph, from information received by the steamer Arabia, requires a comment:—

"*English Cotton Trade.*—The British export of cotton goods in September was \$17,300,000 in value; against \$16,250,000 same month last year. The stock of American cotton at Liverpool, Oct. 30, was down to 160,690 bales, against 339,920 same date last year; of all sorts, 344,170, against 448,680, same time last year."

We thus see, that in the face of the increased demand in Great Britain for cotton, (predicated on the increased exportation of manufactured goods,) and of the decreased production in the last crop, now fully ascertained, a very heavy decline has taken place in the price of the raw cotton. This state of things can be but temporary, and it will probably be found that as soon as matters settle down, as they have now a tendency to do, cotton will advance to a higher point than it has yet reached. We cannot see how it can be otherwise—there is no substantial reason for the recent panic, and it must very soon subside. The whole difficulties were brought about by the New York banks, in so enormously extending their line of discounts, no doubt in a great measure to brokers, and speculators in stocks and other enterprises not legitimately belonging to the commerce of the country. The failure of the Cincinnati Trust Company's branch in New York, disordered the weak nerves of the Bank Presidents of Wall street, who then began to curtail their business at so rapid a rate, that no city in the world could

stand up to it. The result is too well known—after adhering to their policy till a larger portion of their merchants and business men were obliged to suspend, the banks themselves, having, through their own imbecility, caused all the damage possible, were themselves obliged to follow their customers, and place themselves at the mercy of the legislature and the Courts. Being the centre of all monetary operations of the whole Union, the effect of their mismanagement could not fail to affect the most distant sections of the country, and the consequences are felt in the business of every class, commercial, manufacturing and agricultural.

The same causes which have operated to depress the price of cotton, have had a similar effect on breadstuffs. Notwithstanding the glowing accounts of the crops of Europe, large orders are being forwarded to this country for our breadstuffs, and we see it stated in the New York papers, that not less than thirty vessels were loading in that port for Liverpool and Glasgow with grain—and we are firmly convinced that the anticipations of heavy crops in reserve, waiting to be "moved," will be disappointed; moreover, that there will be a heavier demand for European consumption before another harvest, than there has been for some years past. All the lights which have been brought to bear upon this subject, tend to confirm our faith in the views which we have heretofore presented on this subject. To show that we are not alone in these views, we copy from a recent leading article in the *Prairie* (Chicago, Ill.) Farmer, of 5th November, the following extract:

"*The Grain Trade of Europe.*—The fact is gradually breaking through the mists of commercial bankruptcy, that the European demand for American produce will this year, dating from the first of October, be greater than it was last year. As long ago as the middle of September it was apparent that something mysterious was going on behind the curtains; but such was the profound dissimulation of the operators, that no disinterested man felt willing to risk his reputation upon the bare possibility of a lucky guess. It was quite certain that after harvest the price of wheat would continue to decline for eight, ten, or perhaps twelve weeks; and under such circumstances, with an uncertain future before us, the best advice which any one could offer to farmers who were in debt, and who would need money before next spring, was, to thresh and sell their wheat as soon as possible. The scarcity of money rendered this course in many cases necessary, even with an assurance that next May the price of wheat would be fifty per cent. higher."

"The urgency with which New York grain dealers advised Western farmers to sell their wheat before the close of navigation, under ordinary circumstances would have excited suspicion; but the money panic afforded a safe screen, as it were, behind which they carried on their operations without being observed. It now appears that there will be an increased European demand for American produce, and that this fact was well known six weeks ago by New York and Liverpool sharpers, who will make an immense profit on the

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wheat and flour which they have bought since harvest. Canadian speculators seem to have long been aware of the true condition of things in Europe, and until lately they have been the principal operators in the Chicago market. The farmers of the Northwest, who reluctantly parted with their wheat at two-thirds or three-fourths of its true value, and who tried to console themselves with the humane reflection that their loss would be a gain to the suffering poor of the Eastern States and of Europe, can now learn that their unrequited sweat will simply augment the ill-gotten wealth of the mercantile gamblers, whose warehouses are dropping with the cheap-bought fatness of our generous prairies. Farmers are constantly abused for refusing to sell their produce at rates graduated to suit the necessities of the poor in cities; but while everything must pass through the toll-gates of the middle-men, the price will not be a compromise between the abundance of the producer and the wants of the consumer, but it will be just whatever can be exacted from hunger.—The wheat bought this season in Illinois for forty cents per bushel will cost the poor of New York and London just as much as that bought for twice forty cents."

The writer goes on to show the causes operating in Europe and this country, to produce a large demand for breadstuffs, and concludes with the following advice:

"The European potato crop may be set down as a failure; France, instead of being a wheat seller, will be a wheat buyer; Britain will need much more breadstuffs than was expected, and the continental grain producing states will be able to furnish less than usual. Must not this combination of circumstances cause an advance in prices?—Two other facts must not be overlooked. In the Eastern and Middle States of our own country the rot is rapidly wasting the potato crop. This will bring the home demand for wheat and corn nearly up to last year's mark. And the unexpected obstinacy and extent of the revolution in Hindostan will still farther increase the foreign demand for provisions of every description. In view of this condition of things, we advise all farmers who are out of debt, and whose necessities will not compel them to dispose of their crops on any terms, to sell no more grain at last week's rates. We do not rejoice that the necessities of the poor of Europe will create an unexpected demand for our plenty; but if their necessities will increase prices, and if by that means any class is to be benefitted, we do say, let that class be our farmers, for they will make the best use of the money. The poor consumers will be compelled to pay just the same price for their bread, whether farmers dispose of their grain at its full value or at half its value."

**THE WEATHER.**—A killing frost was felt on the 19th and 20th ult. which must have done much damage, and been very general throughout the country. A heavy snow fell at the North, and stopped the rail road trains by the drifts, and at Augusta, Geo. ice half an inch thick was formed. The canals will probably close immediately and much inconvenience and distress will be added to the present financial difficulties, by the early stoppage of navigation.

#### THE VA. STATE AGRICULTURAL SOCIETY.

The annual meeting of this society was held at Richmond, on the 27th to 29th October, and appears to have been very successful.

For Horses on exhibition, we find the principal premiums were awarded to R. V. Gaines, of Charlotte, for his thorough-bred stallion, Trojan, the first premium of \$50; 2d premium to John Belcher, for Red Eye; for best mare, \$20 to Thomas W. Doswell, for Nina; and 2d do. \$10, to William Allen, of Surry, for his sorrel mare, Florence. To W. C. Rives, \$40, for his stallion Emperor, for useful and elegant purposes; and for 2d best, to R. H. Dulaney, of Loudon, \$20, for his Scrivenger; for best brood mare, in same class, \$20 to S. W. Ficklin, for his dun mare; 2d best do., \$10 to J. H. Cox, of Chesterfield. First premiums were also awarded to colts by Emperor and Kossuth. To H. J. Smith, \$40, for his heavy draught horse, Henry, 8 years old, the 1st premium; 2d do. to W. H. Blunt, of Georgetown, \$20, for his Morse Grey; to R. B. Haxall, of Orange, \$20, for best brood mare in this class, for Sontag; 2d best, \$10 to J. T. Barksdale, of Albemarle, for his Morgan. For the best heavy draught stallion, a certificate of continued superiority, to sorrel Rattler; for 2d best, \$20 to S. R. Booten; for best brood mare of this class, \$20 to B. Wood, of Albemarle, for his dark chesnut sorrel; and for 2d best, to W. F. Hord, of Henrico, for Timber. To R. H. Dulaney, \$10, for best entire colt, foaled since January, 1854, for his black stallion, Cobham, 3 years old. To J. P. Ballard, of Richmond, \$20 for a pair of draft horses, and \$30 for the best team of 4 horses. To B. T. Souffer, of Loudon, \$40 for the best stallion for the saddle; and \$10 to Mrs. A. Kerr, for the best 2 year old filly; to J. B. Oden, of Loudon, \$20 for the best saddle horse, mare or gelding.—To B. W. Green, \$40 for the best jack, Dick Sampson; to T. H. Perkins, for 2d best \$20, for Cortez; to E. R. Fox, \$20 for best jennet, Black Jennet; and to B. W. Green, \$10 for 2d best, Lady of the Lake.

Of Short Horn Durhams, to S. C. Ludington, of Greenbriar, \$30, for his bull Scipio; to Dr. D. B. Saunders, of Wythe, 2d best, \$15, for Highlander; to same for his cow, Clarissa Parvein, \$30; and to R. H. Dulaney, \$15 for 2d best cow. Dr. Saunders and Mr. Dulaney also bore off all the premiums in this class, for younger animals. Of Devons, to H. J. Strandberg, of Maryland, \$30, for his bull, Percy; to A. G. Davis, of Loudon, \$15 for 2d best, his William Wallace; to H. J. Strandberg, \$30 for best cow, Dairy Maid; to T. Jeff. Peyton, of Albemarle, \$15 for 2d best, his Belle; to Dr. P. B. Pendleton, of Louisa, \$15 for his bull, Baltimore, 2 to 3 years old; to T. J. Peyton, for Herndon, the 1st premium for 1 to 2 year old bulls, \$15; to B. J. Barbour, of Orange, \$8 for 2d best, to his Young America; to L. Bailey, of

Fairfax, for best heifer, 1 to 2 years old, for Beauty; 2d best do., to Dr. P. B. Pendleton, \$8 for Dew Drop. For *Alderney* bull, \$30 to John G. Turpin, of Chesterfield. Of *Ayrshires*, to P. D. Glinn, of Henrico, for cow Christmas, a certificate of continued superiority; to J. O. Pendleton, of Orange, 2d best, \$10 for Polly; to P. D. Glinn, \$10 and \$8, for 1st and 2d best heifers, Martha and Mary, twins of Christmas, 1 year old. To J. B. Crenshaw, of Henrico, \$20 for best imported bull, Mars, 3 years old. Of *Grades*, to S. Ludington, of Greenbriar, \$15 for best cow 3 years old; and \$10 for best heifer 1 to 2 years old, to same; to S. W. Ficklin, of Albemarle, \$10 and \$5, for best and 2d best heifers. Of *Dairy Cows*, to S. C. Ludington, of Greenbriar, for best, \$30 for Lady Roan, and between R. H. Dulaney for his Beauty, and Mr. Garnett, of Essex, the 2d premium was divided.

For *Working Oxen*, all the premiums awarded were to Lewis Bailey, of Fairfax. For *Fat Cattle*, to Capt. H. Wysor, of Pulaski, for best fat aged steers; to Major J. R. Kent, of Montgomery, \$25 for 2d best; and to Major Kent, \$40 for best do. under 4 years; for best fat cow over 4 years, \$20 to S. C. Ludington; for best fat heifer under 4 years, \$20 to R. W. Sanders, of Wythe; and \$10 for 2d best do. to S. C. Ludington; to Frank Grayson, \$15 for best single fat steer. For *Fat Sheep*, to R. H. Dulaney, for best of 4 or more fat sheep; to W. C. Rives, \$5 for best slaughtered Middle Wool sheep; to James Newman, of Orange, \$5 for best Long Wool do. No fat Hogs exhibited.

For *Sheep*, for Merinos and Grades, to S. S. Bradford was awarded all the premiums offered; to John G. Turpin, \$20 for best pen of Saxon ewes; to R. H. Dulaney, all the premiums for South Downs; to Dr. John R. Woods, of Alb., \$20 for best pen of South Down Grade ewes; and \$10 to R. H. Dulaney, for 2d best do.; to W. C. Rives, for Oxford Downs, and grades of do., the several premiums offered; to Dr. J. R. Woods, \$20 for best Long Wool ram; to J. Peyton, \$10 for 2d best do.; to J. W. Ware, of Clark, for 3d best do., a certificate of merit; to J. W. Ware, for best and 2d best pens of ewes, \$20 and \$10; to same, for best pens of ram and ewe lambs, each \$10; to Dr. John R. Woods, for best pen of Long Wool grade ewes, \$20; to Col. Ware, \$10 for 2d best do.; for best pen ewe lambs, \$10 to Dr. Woods. For best imported Merino ram, \$20 to S. S. Bradford; to same for best imported ewes and ewe lambs, \$10 each; to J. G. Turpin, \$20 each, for best imported Bakewell or Leicester ram and ewe; to J. W. Ware, for best and 2d best imported Cotswold or New Oxfordshire buck and ewe, \$20 and \$10 each; to R. H. Dulaney, same for South Downs; and to W. C. Rives, same for Oxford Downs.

For *Swine*, best large breed boar, \$20 to Peyton Johnston, of Henrico; 2d best, \$10 to S. W. Fick-

lin; best 1 year old boar, \$15 to Dr. J. R. Woods, and \$20 to same, for best breeding sow over 2 years, and \$15 to same, for best sow 6 to 18 months; to S. W. Ficklin, \$10 for 2d best sow over 2 years, and \$8 for 2d best over 6 months, and \$10 for best lot of pigs; P. Johnston, \$5 for 2d best. Small breed—to Jos. Linton & Sons, \$20 for best boar over 2 years, and to J. G. Turpin, \$10 for 2d best do.; best 1 year old boar, \$15 to P. Johnston; and \$8 for 2d best do., to W. B. Sydnor; for best breeding sow over 2 years, \$20 to J. G. Turpin; 2d best, \$10 to P. Johnston; for best sow over 6 months, \$15 to J. G. Turpin, and \$8 to P. Johnston, for 2d best; for best lot of pigs, \$10 to R. H. Dulaney, and \$5 for 2d best, to Wm. B. Sydnor.

*Additional Premiums to Premium Animals, for which Certificates of Merit were awarded.*—For the best bull of any breed on exhibition, S. Ludington, for "Scipio." For the best cow of any breed on exhibition, R. H. Dulaney, for Dairy Maid.—For the best stallion of any breed on exhibition, John Belcher for Red Eye. For the best brood mare of any breed on exhibition, T. W. Doswell, for Nina. For the best ram of any breed on exhibition, R. H. Dulaney, Southdown. For the best ewe of any breed on exhibition, to same.—For the best boar of any breed on exhibition, Peyton Johnson. For the best breeding sow of any breed on exhibition, S. W. Ficklin.

For *Implements and Machinery*, H. M. Smith, of Richmond, received the premium of \$25, for the most extensive and valuable collection, besides numerous premiums, for best horse power, clod crusher, roller, lime spreader, hay press, threshers, &c. To Baldwin, Cardwell & Co., of Richmond, Geo. Watt & Co., A. P. Routt, of Orange, premiums were awarded, for various implements and machinery; also to Montgomery & Bro., of Baltimore, for their Rockaway Fan; to G. B. Griffin, of Harrisburg, for straw cutter; to Geo. C. Hopkins, for Granger's magic mill; to M. S. Kahle, for machine for gathering cloverseed; and \$50 to P. Rahm, for best engine for agricultural purposes, as a substitute for horse power.

**A SMALL DOSE OF LIME ON WHEAT.**—Several intelligent gentlemen think that they found much benefit the past year by the application of a few bushels of water slaked lime, in checking the ravages of the fly. The dry powder is sown lightly over the wheat early in the morning or in damp weather. It is safer to sow both in the Fall and Spring, about the time the fly is likely to make its appearance.

It is supposed too, by some, that this Homeopathic dose frequently repeated is the most effective way of using lime. It is one of those things which can do no harm, but may prove on further experience to be valuable, and is therefore well worth trying.

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## SOIL ANALYSIS.

In our April No. of the present year we went fully into the subject of soil analysis, showing that for the present there is no hope that it can be made available in practice for the improvement of the soil; first upon account of the extreme uncertainty of getting a fair average sample of the soil; secondly, on account of the difficulty of testing with sufficient accuracy the presence of the necessary elements, and thirdly on account of the cost of a proper analysis, supposing the other possible.

In July, Mr. Harris, of the *Genesee Farmer*, a chemist himself, and one of the best agricultural writers of the day, maintains the same ground in part, with his usual ability. Dr. Lee of the *Southern Cultivator*, a gentleman of high reputation and much experience as an agricultural chemist and writer, takes up the subject in reply through the *Genesee Farmer*, and in several articles on both sides, the question is discussed in a fair and friendly way.

Mr. Harris maintains with complete success, in our opinion, that the most thorough chemical analysis cannot determine whether any particular substance such as phosphoric acid or ammonia exists in sufficient quantity for maximum crops. The chemist will tell you, he says, "your soil according to analyses, is deficient in potash and soda and phosphates and ammonia; you should therefore apply twenty bushels of unleached wood ashes, a bushel of salt, four hundred pounds of the improved superphosphate of lime, and two hundred pounds of the best Peruvian Guano. These will furnish what your soil lacks," "and yet," adds Mr. H., "no honest chemist will claim that he could tell by analysis which part of the field had been so treated and which not."

Dr. Lee, without maintaining, as we understand him, the direct practical use of soil analysis, deprecates what he calls the "writing down" of "the application of analytical chemistry to the study of soils." He thinks that such a course on the part of the agricultural press tends to discourage researches in that department of agricultural science which relates to the barrenness and fertility of land. He thinks that such researches will lead to valuable results, that eventually agriculture will reap the benefit, and therefore that no friend to agricultural improvement should say anything to discourage them, but should endeavour "to direct them into a more profitable line of research."

Mr. Harris' reply on this point so entirely accords with our own views on the subject, and is so well said, that we give it entire; regretting at the same time that we cannot copy the whole discussion.

"We entirely agree with Dr. Lee that it is desirable to direct analytical chemistry "into a more

promising line of research." We have no wish to discourage investigations into the nature and action of the food of plants in soils. Such investigations may lead to valuable results. But such investigations are very different from ordinary soil analyses. In the one case the chemist is *searching for scientific truth*; in the other he professes, for from \$5 to \$50, to furnish information of a definite nature that is of great practical value to the cultivator of the soil. We assert that he cannot furnish such information, and think he ought not to make unfounded pretensions, for the purpose either of getting money from the farmer, or from the hope that he may discover some new and important truth. In this case as in all others, "honesty is the best policy." Let the intelligent agriculturists and horticulturists of America know the truth in regard to the present position of chemistry as applied to agriculture. Let them know in what direction it is desirable to make researches, and we have no hesitation in saying that they will not withhold either their sympathies or their money. The "agricultural press" will not "discourage" such investigations. It has no wish to "depress an earnest desire for more light in the science of agriculture." On the contrary, it will cheerfully lend its aid in supporting those who are endeavoring to search out the hidden laws of vegetable growth and animal nutrition. American farmers would gladly support an institution in which scientific investigations could be carried on conjointly in the field and in the laboratory, could they be assured that it would not be controlled by mere politicians. Unfortunately, the immense sums of money which have been appropriated for the encouragement of agricultural science, have not afforded results at all commensurate with the just expectations of the public. Nearly all the money has gone into the hands of wire-pulling politicians, and the cause of agricultural science has been retarded rather than advanced by these liberal appropriations. Let scientific men be candid: let the agricultural press be honest; let us not resort to doubtful expedients; let us fearlessly declare the *truth*, and the boastful pretenders of science, falsely so called, will hide their diminished heads, and the sincere searcher after scientific truths will no longer have occasion to complain of the want of sympathy and support from the generous tillers of the soil."

**CORRECTION.**—We are requested to correct an error in the report of the Committee on the Sorgho Syrup, at the last State Exhibition. The sample to which the premium of \$5 was awarded, was made by Mr. Ed. T. Wroth, near head of Sassafras, Kent Co., Md., and was forwarded by Mrs. Wroth, to be placed on exhibition.

**THE AGRICULTURAL EXHIBITION** held at Port Tobacco, Md., last month, was largely attended, but the display was not as extensive as last year; Gen. George W. Hughes, of Anne Arundel county, delivered the Annual Address.

**"THE ARATOR."**—The publication of this agricultural journal, heretofore issued at Raleigh, N. C., ceased with the last No. for want of patronage. The printing office is offered for sale.

**FLORICULTURE--December, 1857.**

*Prepared for the American Farmer, by W. D. Drackenridge, Florist and Pomologist, Gowanstown, Balt. Co., Md.*

**Camellias**—Now in bloom, will require a liberal supply of water at the roots—using liquid manure occasionally; keep the atmosphere rather humid, than otherwise—as directed for last month—and syringe the blooming plants but lightly, as much water injures the expanded flowers.

**Calceolarias**—Should be repotted this month, using a compost of friable loam, rotted leaves and sharp sand, in about equal proportions; syringe frequently, to keep down the red spider; the Calceolaria, in a dry atmosphere, being subject to attacks from these pests.

**Verbenas**—pot off all rooted cuttings; shift into pots one size larger; those that are already established, and wanted to bloom early in Spring.

**Victoria, Ten Week, and other Stocks**, may now be shifted in the next size pots.

**Lilium Longiflora, Lancifolia**, and their varieties, if not already done, should be potted without delay, as late shifting ruins them for blooming next season.

**Amaryllis**—in a dormant state, may now be shifted, and placed in a moist temperature of 75° Farn., when they will come into bloom during the winter.

**Chrysanthemums**—when out of bloom, should be treated as directed for last month.

**Auriculas and Carnations**—in cold frames, should receive plenty of light and air in fine weather, and be but sparingly watered at this season.

**Roses**—of the Tea and Bourbon kinds, in the open ground, should be protected with a light covering of leaves or straw manure. Shift those potted off in August and September, fumigate with tobacco these, as well as the larger flowering plants in the Greenhouse, in order to kill the Aphs.

**Frames or Pits**—containing hardy or half-hardy plants, must in cold weather be covered at night with thick mats; the best material of which to make these, is rye straw.

**Greenhouse Department**—To manage it well during the winter months, so as to secure a good healthy growth, and a profusion of bloom in Spring, requires much judgement and close attention; never let the temperature, either by the sun or artificial heat, exceed 60° Farn.; it is better to let it range between 40 and 55° than higher or lower; always give air early in the forenoon, and take it off so soon as the sun begins to decline; beware of currents of cold air setting through the house, remembering always, that vegetable bodies are as sensitive to sudden changes of temperature as the animal; water with caution, and be rather sparing with it than otherwise; keep your plants neatly tied up to a single stake, and do not use more, for we have often seen eight to one dozen of stakes to a plant, where one was sufficient. Pick off all dead leaves, and give every part of the house a thorough cleaning out, at least once every week, always observing to keep the pathways damp, so as to prevent the dust raised by passers to and fro, from settling on the leaves of the plants. Continue to put in cuttings of all hard wooded plants, as *Eucaris, Erica, Diosma, Astroloma*, &c. &c. most of which, if properly cared for, will be rooted by Spring.

**Tulip and Hyacinth Beds**—Cover with a coat two inches thick, of rotted leaves, or manure; protect

also with the same material the choice kinds of double *Hollyhocks*, and other tender herbaceous plants.

**THE CHINESE AND AFRICAN SUGAR CANE.**

By the following letter from Edmund Ruffin, Esq., it will be seen that the expectation of making sugar from the Chinese and African sugar cane, is likely to be disappointed. No man in the country has given the subject more attention than Gov. Hammond, and we are satisfied that every possible effort has been made by him, to secure the desired object. Still, as Mr. Ruffin remarks, this result does not detract from the other benefits to be derived from the introduction of the cane. *Syrup*, of a quality equal to any made in Louisiana, has been made, and in quantities, and the fact is proven that every farmer and planter from Texas to Pennsylvania, can obtain their own supplies of the syrup from this source:

With the permission of Ex-Governor Hammond, of South Carolina, I send, for publication, the extracts from two letters recently received from him. From these, in addition to all other known and recent testimony, I deem that there can remain no longer any doubt of the impossibility of obtaining sugar, to any useful end, from the juice of either the Chinese or the African Sugar Millet. Gov. Hammond had grown these on a large scale—on more than 100 acres—embracing 15 or more of the African varieties. Every proper care was taken for the culture—and a fine crop was raised. No proper expense was spared for the machinery, &c., for grinding the cane and boiling the juice.

But though (in contradiction to former general expectation, and to much prior and particular evidence,) it seems that sugar cannot be produced from these plants, that conclusion, in my opinion, detracts but little from their value for this region. There is no doubt that excellent syrup may be made, even by very rude means and methods—and, by proper means, probably in profitable quantity, for general home consumption. This is enough for us. Also, the feeding value of the green plants is of much importance. Even when I formerly gave credence to the many assertions that sugar could be made, I did not then suppose that the practical operation could be profitable here, or as cheap as to buy the sugar made from sugar cane in hot climates. I hope that numerous experiments and fair trial will be made of the Sugar Millet, and of all its varieties, so that the true general value, and the most productive kinds, may be known.

EDMUND RUFFIN.

**STOCK FOR ALABAMA.**—The Vermont Stock Journal for October, says, that Mr. D. Edgar Hill, of Bridport, Vt., has lately sold his beautiful horse, **BLACK HAWK CHIEF**, to Dr. Ashe, and some gentlemen associated with him, of Alabama. The same parties have also purchased several very valuable Black Hawk mares for the same destination. Black Hawk Chief is a son of Old Black Hawk, and has been a popular horse for several years. This is not Dr. Ashe's first experiment in Vermont Horses. He purchased three or four fine animals some two years since, and they have proved so valuable that he has been led to make the above addition to his stock.

## THE FLOWER GARDEN.

We copy the following article, written by a farmer's wife, from the *New England Farmer*, to show that the best flower gardens may be easily had,—we shall not say by labor and perseverance, but by merely allowing the taste to take its own unrestrained course, and giving its gratification the form of a pleasure and recreation. Hire a little more in-door help, if necessary; and the gain in health and spirits will greatly overpay the outlay, even if doctor's bills alone are reckoned into the account.

"In the autumn of 18—I met with a very severe domestic affliction. A long, dreary winter passed, spring came, and knowing as I well did that occupation affords relief to one in affliction, I resolved to spend my leisure moments in attempting to cultivate a few flowers. I applied to my husband, who offered me a nice, rich and highly cultivated little spot in our excellent vegetable garden. I took a few bottles of maple syrup and an old farm-horse, and drove to the house of an elderly couple about two miles distant, who, I had previously observed, cultivated flowers. I told the gentleman I was desirous of getting some plants to place in my own garden; the old man was evidently pleased to see me manifesting a taste for flowers, and gave me as he could spare. I think he only had a few varieties of pinks, some of the common roses, and a flowering almond, which was his treasure; he succeeded in getting a little root for me. Leaving the syrup with him, as he refused money, I returned home delighted with my prizes. Everything I placed in my little bed grew and thrived finely. The cultivation of that little spot was to me a source of real comfort. In the autumn following, a lady sent me four tulip bulbs. I felt rich. I will just say, my garden operations commenced between twelve and fifteen years ago. I had over two thousand tulips in blossom last summer, and with safety can say I have given away over a bushel of tulip bulbs. I have now twenty-seven varieties, besides all the bulbous roots that can be cultivated in our northern clime. I have over twenty varieties of roses, comprising many choice ones, and almost an endless variety of flowers, both perennials and annuals, cultivated in our garden.

The pleasure I have derived from the tending of my garden has amply repaid me for all the labor bestowed upon it. Indeed the labor has been but pleasure.

I know many object to a flower garden, or even to a border of flowers, on the ground of too much labor and expense. I will now state as nearly as possible, the amount of time and money expended upon my garden.

I never bought but two plants for it, namely, a trumpet honeysuckle, and a pink moss-rose, obtaining my shrubs and plants, by exchanging my own for those I had not, many being given to me at the outset; but I have had abundant opportunity to repay all such favors.

Now for the labor bestowed thereon. We have many shade trees about our house. I suffer the leaves that fall in autumn, to remain on the ground through the winter, as they afford some protection to the roots. I have a man rake them off carefully in the spring—it can be done in a few hours.

My borders, containing bulbous roots, require no care in spring, as I prepare them with my garden-rake in the autumn with my own hands. I then take two-thirds of the care of my borders through the summer, having the help of a man, perhaps an hour in a day while the weeds are growing rapidly; after that time I usually do all myself, and to me it is a most pleasant pastime. I am a farmer's wife, and not without an abundance of in-door employment, but my garden is my relaxation from labor; money would not tempt me to part with it. From the earliest crocuses and snow-drops to the latest autumnal flower, it is one continual pleasure. It is a very great advantage to children, too, giving them a taste in early life for the beautiful in nature. No one can deny that our hearts are made better by communion with the works of God.

I will add, that since I commenced gardening there have sprung up about our dwelling, trees bearing most delicious plums, cherries and pears; vines laden with the juicy grape; strawberries and raspberries, too, have each their proper place in some favorable spot. I would not willingly exchange my home for what it was before we cultivated fruits and flowers, and I believe any person that owns even a small amount of land, without being the poorer for it, can afford a little spot for ornamental gardening."

## SPREADING MANURE ON THE SURFACE.

A writer in the *Edinburg Journal of Agriculture*, commenting on the views of Prof. Voelcker, as to the exposure of fresh manure on the surface of the ground, relates the following striking experiment, made by a scientific man, for the purpose of testing expressly the several methods of using manure:

"There being a difference of opinion among scientific men regarding the advantage of spreading dung upon the surface, and leaving it exposed for some time before covering it in, Professor Legnitz, of Eldena, had recourse to experiment for the solving of the question. For this purpose he selected 2½ roods, which he divided into four equal parts. To No. 1 no manure was given. No. 2 received about two tons of farm-yard dung, which was spread immediately and covered in by means of the plough. No. 3 was treated in the same manner, with this difference, that the hoe was used instead of the plough. The same quantity of dung was carried to No. 4, and allowed to remain spread for three weeks on the soil before being covered in by the hoe. On the 10th of October the four lots subjected to experiment were sown with about 95 pints of rye seed each. The following are the total results of the crop of each lot, grain and straw included:

No. 1 produced 583 lbs.	No. 2 produced 770 lbs.
" 3 " 818 "	" 4 " 935 "

The writer very justly remarks, that a single experiment should not be considered conclusive, but that it is sufficiently striking to warrant a repetition of it on a larger scale.

TO SUBSCRIBERS OF THE AMERICAN FARMER, AT RICHMOND, VA.—*Peyton Johnston, Esq.*, 115 Maine street, will be furnished with the bills of all persons indebted to us at Richmond and its vicinity—those indebted to the Farmer will please make payment to him.

## TOBACCO.

On another page we have presented some views in regard to the monetary affairs of the country, and their effects upon the prices of Cotton and Grain, &c.—Below we give in connexion therewith, some remarks upon the price and prospects of Tobacco, from the Marlboro, (Md.) Gazette of the 25th. ult., which goes still further to prove that the present low rates for our produce is not predicated upon their abundance, but upon the derangement of the currency of this country and Europe:

"TOBACCO.—The Clarksville (Tenn.) Chronicle says that a crop of tobacco sold there last week at \$7 per cwt. and several tobaccoists have closed contracts for the weed at \$5a \$5.50 per cwt."

The above article, from the Clarksville (Tenn.) Chronicle, would seem to indicate that the sales of this article will range among the low prices next year. But a moment's reflection will satisfy any thinking mind that our sister neighbors of Tennessee have become alarmed too soon, and without adequate cause.

The recent circulars from Europe to the State Department on Tobacco Statistics, shew that there is no surplus on hand abroad, but a greatly diminished supply, as compared with former years. Besides this, it is well known that the crop of this year, is far short of the crops of either 1855 or 1856. The domestic consumption has increased within the last ten years, twenty five percent., and the demand in foreign countries has been increasing in the same ratio, while the production at home, for the want of labor and other causes, has made no progress corresponding to this increased consumption at home and abroad.

The foreign production has never been and never can be very large, therefore the great supplies for foreign consumption must be drawn from this country after supplying its own large and increasing demands. But more particularly at this time, when our foreign debt is to be paid in agricultural productions, if paid at all, by reason of the utter prostration and loss of other available remittances, it is the height of folly, or at least of exaggerated panic, to suppose that the only available mediums of exchange (cotton, tobacco and breadstuffs) can long remain at an inactive or retrograding value.

By the last arrival from Europe we have an illustration of what we say. The Paris correspondent of the *Courier des Etats Unis*, uses the following significant language in one of his letters:—"Most of the houses which may suffer in their trade with the United States are rich, and well able to resist the crisis; while others have adopted measures to save themselves and receive returns for their advances. They have transmitted orders to their agents in the United States to accept payment in paper, and immediately to employ it in the purchase of cereals, cotton, sugars, &c., for which they can easily find a good market in Europe." The same results took place in 1837, during the suspension of specie payments by the banks in that year. Agricultural productions were almost the only remittances that were made to foreign countries, and accordingly, in that year, and in 1838, tobacco as well as cotton commanded high and remunerating prices. So it will and must ever be when by reason of the hoarding of specie by the banks or other debtors, the productions of a country become the chief if not the only commodities of exchange.

We say then to the Tobacco and Cotton Planters, be of good cheer. You hold in your hands the staff of national and international prosperity and integrity. The debts neither of nations or of individuals can be liquidated without a resort to your medium of exchange. Be not foolish or dumb stricken by brainless newspaper paragraphs or commercial hirings, but knowing and feeling your own independence and strength, stand firm and demand the real value of your agricultural labors. Both cotton and tobacco ought to advance instead of decline.

## MEETING OF THE EXECUTIVE COMMITTEE OF THE MARYLAND STATE AGRICULTURAL SOCIETY.

Baltimore, Nov. 17, 1857.

The Committee met pursuant to call. Present, Ramsay McHenry, Esq., President, and Messrs. O. Bowie, J. H. McHenry, Chas. Ridgely, of H., and Frank Cooke.

A letter was received from Dr. S. P. Smith, apologizing for his absence in consequence of indisposition.

On motion Mr. J. H. McHenry, the Treasurer was called on for a statement of the receipts and expenditures of the Society, and its liabilities as far as could be determined. The Treasurer in accordance with the call, made a statement, when, on motion of Mr. Bowie, his accounts were ordered to be referred to a committee of three for examination to report to an adjourned meeting, to be held on the first Tuesday in December—Committee, Mr. R. McHenry, Mr. J. Merryman and Mr. F. Cooke.

On motion, it was ordered that the Treasurer call on all members of the Society who have not paid their dues for the past year, urging them to do so as early as possible.

On motion of Mr. J. H. McHenry, the premium of \$18 for the best imported Jack was ordered to be paid to Mr. J. Crosby—the same having been improperly entered at the Show among the native Jacks, and not reported on.

On motion, the recommendations of the several Committees for discretionary premiums, were declined, on account of the state of the Treasury.

The attention of the Committee was called to the premium on Essays, but no action was taken thereon at the meeting.

Mr. Jno. Merryman, was authorized to make a disposition of the grounds for the ensuing year.

The Committee then adjourned to the 1st Tuesday in December.

Tets, SAMUEL SANDS, Secretary.

ARABIAN STALLION.—Aaron Clement, Esq. of Philadelphia, has for sale an Arabian Stallion, well vouched for—and other rare Stock.

*The Rural Annual, and Horticultural Directory*, for 1858, by Jos. Harris, Editor of the *Genesee Farmer*, is just issued. It contains a variety of useful matter, of interest to every cultivator of the soil.

## LIME.

In a recent number we gave a portion of a chapter from Norton's Scientific Agriculture, on the beneficial effects of, and directions for using, lime. We give the conclusion of the chapter, on the composition of Lime:—

Numerous kinds of limestone, differing greatly in purity, are found in various districts. In some sections these are all magnesian limestones or dolomites, as these are called by mineralogists, containing, beside carbonate of lime, carbonate of magnesia. Where the magnesia is in large quantity, it is decidedly injurious, and in some cases is so much as to render the limestone inadmissible for agricultural purposes. It is these from which the hydraulic or water cement is made. Although magnesia is necessary to plants, caustic magnesia, if introduced in large quantity into the soil, seems to produce a very bad effect, and lime that contains much of it is therefore to be avoided.

Beside limestones, there are several other forms in which lime is largely used by the farmer. The chief of these is marl. This substance consists usually of the fragments and dust of sea, fresh water, or land shells, more or less mixed with earth. When pure, the greater portion is carbonate of lime.

There are many marls which do not contain more than from 15 to 25 per cent of lime. It is necessary to apply these in much larger quantity, to produce an equal effect, and of course they will not bear transportation to so great a distance.—In using marls, it is always best to put on heavier doses than of any form of burnt lime, as there is not, from its mild nature, the same risk of adding too much.

There are in this country some substances used largely as manure, and called marls, that have very little lime in them. These are in certain parts of New Jersey. The lime, in shells scattered through them, varies from 10 to 20 per cent in some specimens, in others there is scarcely any at all. The effect of these marls is, however, great upon poor soils, and in New Jersey they are very largely applied. The secret of their value lies chiefly in from 12 to 20 per cent of potash, which the best of them contain, according to the analyses of Prof. H. D. Rodgers.

It is always easy to ascertain whether any substance supposed to be a marl, really is so or not, by trying it with a little muriatic acid. If there is much carbonate of lime, the effervescence will be strong and violent, owing to the bubbling up and escape of carbonic acid gas. Carbonate of magnesia and many other carbonates would, it is true, produce a like appearance; but these are rarely found native, in very large quantities.

On some sections of the sea coast, a species of shell or coral sand is to be obtained, made up of shells or corals ground into fine fragments by the action of the sea: this is always a valuable manure. On the coast of Ireland, the fishermen go out and scoop it up from a considerable depth. It contains usually some organic remains, which add materially to its value. This, like the marls, may be safely added to the land in large quantities, without fear of injury to crops.

**Patent Office Report.**—We are indebted to Hon. Mr. Holt, Commissioner of Patents, and also to Hon. J. M. Harris, M. C., for copies of the Patent Office Report, which we are distributing to applicants.

## "SLUGGISHNESS OF TRADE."

Under this heading a Western paper says:—

"The shipments of grain from Chicago this year are 6,000,000 bushels less than at this season last year. The receipts are pretty ample, now, but not more so than last year. The same falling off is noted at all the lake ports. The Cincinnati Price Current says the receipts at that city are not half what they ought to be; and the boats at our own landing which lately arrived from below are preparing to lay up, it being impossible to get good cargoes below, even at the lowest possible rates of freight."

The receipts of the Baltimore and Ohio Railroad for the last month, were about \$75,000 less than for the same time last year. Whilst every class of the community is hard pressed, can it be that the scarcity of money is alone the cause of preventing the "moving" of produce to market. The farmers are probably as much in want of money, as they usually are at this season, and in the same ratio we suspect, therefore, they have in all likelihood, forwarded their produce to market. At any rate, there is good reason to believe that there was not the same amount to come to market, as there was last year.

## NEW ADVERTISEMENTS.

The Saturday Evening Post, makes its annual bow to the public through our medium, for renewed support. We commend its appeal, (to be found on the first page of cover) to the readers attention.

Geo. S. Bandel, Baltimore, offers to the public the Wyandotte Corn, this certainly is one of the most extraordinary productions of the age, and worthy the attention, at least on a small scale, of every grain grower.

M. M. Ege, Agent, Baltimore, offers Iron Railings of every description; also tree boxes, wire window frames, &c.

Geo. Page & Co., Balt. it will be seen, have had an important verdict in favor of their Saw Mills—they have, also prepared a Mill for grinding the Sugar Cane, which may be depended on.

S. Sands & Worthington have some of the popular Alderney Cattle and Black Hawk Horses on sale.

Hy. C. Brown & Co., Baltimore, offers Saws of every description. Owners of Saw Mills and others requiring Saws, would do well to call on these gentlemen.

E. Whitman & Co., Baltimore, show the complete triumph of their "Young America" Corn and Cob Mill, in 1857.

Isaac Lohmann, New York, offers for sale some of the Llamas spoken of in another place.

Thos. Baynes, Baltimore, offers Bone Dust and Poudrette, from his well known factory,—those wanting Bone Dust can be supplied, which is not the case at some seasons.

A. G. Mott, Baltimore, offers Cumings' Premium Hay, Straw and Stalk Cutter, which is highly spoken of—also some of the most celebrated Plows in use.

## REPORT ON WORKING OXEN—COUNTY TEAMS.

No formal report was made by the Committee appointed at the late Show of the Maryland State Agricultural Society—but we find the following memorandum in the Record book, signed by Messrs. B. Hickman, of Chester Co., Pa., and Joshua Hutchings and J. N. Henderson, of Baltimore county, viz:—

To J. H. McHenry, of Baltimore Co. the 1st premium.

To Messrs. J. C. Smith, Henry N. Merryman, Jno. Merryman, and S. W. Worthington, of Baltimore Co. the 2d premium.

## BALTIMORE MARKET—Nov. 28.

The produce market has been quite unsettled during the past month—the unexpected panic in England, just as our American affairs were improving, has caused an unfavorable turn for produce of all kinds. By the last steamer, we learn that the British government had permitted the banks to suspend, though not before a number of failures of them and of mercantile houses, had taken place, as had been the case in this country; the suspension had relieved the pressure very sensibly, but of course every kind of business will be depressed for some time to come. It is believed that large amounts of produce will be ordered from this country, in payment of debt, and the necessity for the transition of specie will be thus avoided, to a considerable extent. It is impossible to foretell what is in reserve, and we therefore repeat our advice to our friends, to have their produce in a position to take advantage of the market at the earliest moment. The unusually early stoppage of canal navigation at the North and Northwest, by the recent cold spell, will no doubt cause more active demand for our Southern flour and grain, in the Eastern ports. A long and severe winter, and much suffering and privation by all classes, is anticipated.

Flour, Howard street and Ohio, \$5.25 a 5.37, cash; City Mills, \$5 a 5.35; Family Flour, \$6.35; Extra do. \$7.35; Ohio extra, \$8.75; Howard street do. \$6 a 6.35; and City Mills extra, \$6.25 a 6.75 per bbl. Rye Flour, \$3 a 3.50 per 100 lbs., according to quality. Corn Meal, City Mills, \$3.50 per bbl.; Brandywine do. \$3.50. Wheat, receipts heavy, which, with the unfavorable accounts from Europe, has put down the price several cents; the amount offered on Change, from Saturday the 21st to Wednesday, 25th, was 150,000 bushels; on Friday 13,000 bushels were offered, and the market was a little stiffer, there being an active demand, and Reds sold at 105 a 115c. for fair to prime parcels; Whites sold at 110 a 115c. for ordinary to fair prime; 118 a 125c. for good to prime do.; and 130 a 132c. for choice samples do.—the market for the past week closed buoyant. Corn is also firm; sales at 74 a 75c. for good to prime old Whit.; 75c. for prime old yellow; and 55 a 55c. for new White and Yellow. Oats are in fair request, and prices well sustained, at 30 a 33, for good to prime Md. and Va., and 35c. for prime parcels of Pa. Rye, Md. 70c., Pa. do. 85 a 90c., and rather drooping. Clover seed, \$5.75 a 6, and brisk. Timothy seed, \$3.25 a 3.50. Flaxseed, \$1.10 a 1.15. In Guano and other concentrated manures, not much doing, and prices unchanged. Hay and Straw scarce, and much wanted; Hay, \$14 a 18 per ton, for baled; \$12 a 14 for loose; Wheat and Oat Straw, \$9 a 12 per ton; Rye Straw, \$17 a 18 per ton. Naval Stores—Rosin, \$1.50 a 1.55; Spirits Turpentine, 45 a 46c per gal.; Tar, 1.75 a 2; Pitch, \$2 a 2.2 Rosin, 1.30 a 1.35, No. 1 do. 2.50 a 3 per bbl.—Potatoes, are in demand, and supply good; prime Mercers 55 a \$1, com. do. 55 a 90c. and Sweet, 75c. or \$3 per bbl. Apples, \$3 a 4 per bbl., as in quality. Plaster, no change. Provisions are in fair demand, for shipment, but the stocks are light. Tobacco, Ma. Ground Leaf, as in quality, \$7.80 a 8.50; Inferior Short Seconds, \$6 a 6.50; Brown Leaf, \$8 a 9; and Extra, \$10 a 14; for Ground Leaf, \$5 a 7.50 for ord. to good; single hdds. sell at \$4 a 4.50 for inferior, and \$8 a 9 for choice quality; the receipts are light, and attention is turned mostly to Ground Leaf. Whiskey, 23½ a 23c. for country; 23½ a 24 for city; and 24 a 24½c. per gallon, for Ohio Whiskey. Cattle, Beef, prices range from \$3 to 4.62, on the hoof, equal to \$6 a 5.57 nett, and averaging \$3.75 gross, being a slight improvement. Sheep, \$3.75 a 4.50 per 100 lbs., gross. Hogs, supply light, sales at \$7.35 a 7.37 per 100 lbs., net.

## MARYLAND AGRICULTURAL COLLEGE.

THE SUBSCRIBERS TO THE STOCK OF THE MARYLAND AGRICULTURAL COLLEGE met this day pursuant to notice at the State Agricultural Society's Rooms; when on examination of the Books of the agent by the Commissioners it appeared that the amount of cash required under the law, to authorize the Stockholders to proceed to the election of a Board of Trustees had not been paid in.

Reluctantly and with disappointment, the Commissioners adjourned the meeting, having before doing so, appointed a further meeting to be held at 10 o'clock A. M., on THURSDAY, the 17th of December, at 19 o'clock A. M., in, they trust, the well founded hope, that by this time there will have been effected such a compliance with the requirements of the law as shall enable the Stockholders to discharge their duty in the election of Trustees.

In the interim the Commissioners earnestly invoke the subscribers to this enterprise, those who do really and truly feel an interest in its success, to make payment in cash to their agent, Mr. Bowie, or any one of their own number, of three fourths the amount of their respective subscriptions; or in their option of the whole—the last installment of which will be due on the 1st of January next, the three other installments being, by the terms of subscription, past due at this time.

The law endowing this institution, requires that fifty thousand dollars shall have been subscribed; twenty-five thousand dollars of this amount paid in cash, and the balance secured, to be paid before the Stockholders can enjoy the right of electing Trustees. When organized it is made the duty of the Board of Trustees to select and purchase a suitable Farm for the purposes of the proposed institution. Having done this and reported the fact to the Comptroller of the Treasury, they are entitled under the law to the endowment of six thousand dollars per annum.

The friends of the *Maryland Agricultural College* will thus realize the importance of their zealous and active co-operation, as without it the advantage to be secured from the liberality of the State may be forfeited and forever lost.

To facilitate the action of the Board of Trustees, the Commissioners invite proposals to supply and sell a suitable farm for the purposes of an Agricultural College, to be addressed under seal to the Trustees, in care of the Commissioners of the Maryland Agricultural College, at the State Agricultural Society's Rooms, 138 Baltimore street, Baltimore.

These proposals must be in such form, and so prepared, that any one of them accepted by the Trustees will be obligatory, and at once become a contract between the parties. They must embody succinctly and clearly, location of property, number of acres, price per acre, health of situation, supply and character of water, capabilities of soil, resource of fertilizers, character and condition of buildings, and such other advantages as they claim.

The proposals will be placed in possession of the Trustees, as soon as elected, who will immediately thereafter take steps to secure such information as will enable them properly to compare and estimate the advantages of the several offers, and arrive at a judicious result in their selection. By order of the Commissioners.

JAMES T. EAHLE,  
JOHN O. WHARTON,  
NICHOLAS B. WORTHINGTON,  
CHARLES B. CALVERT,  
GEORGE W. HUGHES,  
WALTER W. W. BOWIE,  
RAMSAY McHENRY,  
JOHN C. WALSH,  
A. B. DAVIS.

Baltimore, Nov. 17th, 1857. decl-1t

## SUGAR MILL.

THE SUBSCRIBERS have invented a strong and substantial SUGAR MILL, to grind Chinese Sugar Cane, that can be depended upon, and driven by one or two horses. It presses out all of the juice at one operation. Price \$180. GEORGE PAGE & CO., Baltimore.

decl-1f

## DOORS, SASHES, BLINDS, GLAZED SASHES, WINDOW AND DOOR FRAMES.

FARMERS can save fifty per cent. in obtaining the above necessary articles for building purposes, by purchasing from

GEORGE O. STEVENS & CO.  
47 Pratt street, Baltimore.

Jan-17

# KETTLEWELL'S No. 1 & 2 MANIPULATED GUANO.

No. 6 Bowly's Wharf, Balt.

No. 1 containing (warranted) 8 per cent. of Ammonia.  
" " " 45 to 50 per cent. Phos. of Lime.  
" " " 5 per cent. of Ammonia.  
" " " 50 to 55 per cent. Phos. of Lime.  
No. 1 \$45 Per Ton of 2,000 lbs.  
" 43 " "

Can always be had at No. 6 Bowly's Wharf.

Certificates from the most reliable sources will be shown at my office, demonstrating its superiority over Peruvian Guano in the production of a first crop, and which cannot fail to satisfy the most cautious or incredulous.

An invitation is extended to all who have tried it, side by side with Peruvian Guano, to report any experiment where it has failed to equal Peruvian results.

It is a perfect powder, every particle ready for application, put up in strong bags, and to guard against imitation, the manufacturers name is stencilled upon every bag.

No farmer should purchase his manures without thoroughly investigating the merits of this article. This, at least, will cost nothing; and may prove of mutual advantage. All certificates which may be published by whomsoever, of the result of "Manipulated Guano" upon all crops previous to the last spring, have reference to the article manufactured at my works, as the originator of this most valuable of all fertilizers—apply to

**JOHN KETTLEWELL,**  
or **G. OBER, General Agent,**  
No. 6 Bowly's Wharf, Balt.

## JAS. S. SUTER & SON'S STEAM TURNING AND SAWING WORKS, AND HARD WOOD LUMBER YARD,

No. 11 N. FREDERICK STREET, BALTO.

**BRACKETS, Newel Post, Banisters, Columns, Carriage and Cart Hubs, &c. Mahogany, Walnut, Cherry, Poplar, Oak, &c., to which we invite the attention of Farmers and Builders.**



**C. W. SLAGLE & CO.**

COMMISSION AND

**PRODUCE MERCHANTS,**

118 & 133 NORTH STREET, BALTIMORE.

**THANKFUL** to our friends for past favors, we would continue to solicit consignments, and pay personal attention to the sale of FLOUR, GRAIN of all kinds, CLOVERSEED, WHISKEY, CORN MEAL and COUNTRY PRODUCE generally. We have for sale Guano, Fish, Salt, Plaster, Clover and Timothy Seed at the lowest rates.

### MILLWRIGHT AND MACHINIST.

**JAMES MURRAY,** 49 York st. (near Light,) Baltimore, Md., returns thanks for the continued favors of the public. He has largely increased his patterns and facilities for doing MILL AND MACHINE WORK generally, such as castings, wrought Iron and Brass work, &c., and warrants all kinds of work planned and erected by him to operate well.

**AGRICULTURAL BOOKS.**—A large assortment of Books on Agriculture and kindred subjects, constantly on sale at this office.

## JAMES FLETCHER'S LOTTERY & EXCHANGE OFFICE No. 3 S. Calvert Street, BALTIMORE.

### MARYLAND LOTTERIES.

#### \$6,000 LOTTERY.

**SPECIAL NOTICE.**

The Famous and Lucky Palapasco Lottery, (small fry,) will hereafter be drawn six times in each week.

#### CAPITALS.

1 prize of \$6,000 is	\$6,000
1 prize of 3,000 is	3,000
5 prizes of 1,000 are	5,000
10 prizes of 500 are	5,000
10 prizes of 250 are	2,500
&c. &c.	&c.

Tickets \$1; Halves 50 Cents; Quarters 25 Cents.

A FULL CERTIFICATE OF PACKAGES, OF

26 Wholes,	\$16	26 Quarters,	\$4
26 Halves,	8	26 Eighths,	2

In the Small Lotteries I average the sale of the highest Capitals at least twice a week, and the prizes have generally fallen into the hands of those who stood in need of money. Persons desirous of giving the small Lottery a fair trial, should take the best plan, and send me \$64, for which I will return four Certificates of Packages of whole Tickets, in all, 104 Tickets, the loss on which could not exceed the money paid, and affords not only a very good chance for a high prize, but a fair one for handsome little fortune. Four packages of consecutive numbers, but seldom missing a good 3 number Ticket, varying from \$100 to \$6,000.

All orders to secure the earliest attention and best selection of regular packages, or single tickets and shares, must be forwarded without delay, and addressed to the great Prize Agent,

**JAMES FLETCHER,**

Box 753 Post Office, BALTIMORE, MD.

**Q7**—The official drawing, duly certified to by the State Commissioner, will be sent immediately after it is drawn, to all who order from me, with a full explanation of the result. The above list contains only the capitals; the prizes in every Lottery vary from the price of Tickets upwards.

jyl-6m

**Read This and Show it to your Neighbor.  
THE FEVER AND AGUE CURED.**

### THE TRAPPER'S REMEDY; OR, OREGON AGUE POWDERS.

**THIS** preparation has been used with eminent success, and being safe and speedy in its operation, has established for itself a HIGH REPUTATION in those quarters where its worth has been made known by experience. By attending strictly to the directions, relief may be confidently calculated upon. No arsenic, quinine, nor poison of any kind in its composition. Many of the most respectable citizens of this and other States have tried it, and will bear testimony to its great value. For sale by

**SMITH & ATKINSON,**

13 S. Sharp St., Baltimore.

A special discount to those who buy to sell again. -cc.-ly

### FOR SALE,

**BY JAMES GOWEN, MOUNTAIN,**  
PHILADELPHIA Co., Pa., the THOROUGH-BRED, HIGH BLOODED SHORT HORN BULL—DUKE OF CUMBERLAND; a mottled roan, now four years old, just in his prime. He has been used but moderately, and only among Mr. Gowen's cattle, in which service he has given proofs of uniformly getting the finest calves ever produced perhaps by any young Bull. He is held at \$500. To Farmers and Breeders, or those who should change their Bull, or to a club of neighboring farmers, the Duke would prove a profitable investment. He is not overgrown or pampered, and with proper care may serve usefully for eight years to come.

ocl-3tortf

**BONE DUST AND POUDRETTE,**

**W**ARRANTED free from any mixture, having the Bone Dust in its natural or pure state. Fine or Stamped, by the bushel or ton.

**POUDRETTE**—a superior article and the cheapest Manure in the market—well adapted for Corn or any crop in the drill or hill.

*References:*—John W. Randolph and M. B. Worthington, Baltimore; Thomas S. Mezeck and John Ridout, Annapolis; R. G. Browster and J. Moull, New Jersey. The above named practical Farmers will testify to its merits.

**FACTORY, WILK STREET AND HARRIS' CREEK, CALTON.** Orders left at the American Farmer office will be attended to. **THOMAS BAYNES.**

**FOR SALE,**

**THE** Imported Alderney (or Jersey) bull **COMMODORE**, calved 1852. Second Prize bull under two years, in the Island of Jersey, 1854. Imported August, 1854.

First Premium for Imp. Alderney Bull under 3 years, Maryland State Show 1854.  
First Premium for Imp. Alderney Bull over 3 years, Maryland State Show 1855.  
First Premium for Imported Alderney Bull, Maryland State Show 1856.  
First Premium for Jersey Bull, U. S. Ag. Society's Show, at Philadelphia, 1856.  
Also in the Premium Jersey Herd, " " 1856.  
Price \$300.

**Jersey Bull MIDSHIPMAN**—Calved April 11, 1854—Sired on the Island of Jersey—Dam Imported Gazelle. Second Premium Alderney Bull, under 3 years old, Maryland State Show 1855.  
First Premium Alderney Bull, between 2 and 3 years, Maryland State Show 1856.  
First Premium Jersey Bull, between 2 and 3 years, U. S. Agr. Society's Show, Philadelphia, 1856.  
Price, \$150.

**Jersey Bull Calves under one year**—Price \$50.

**Imp. Devon Bull RED ROSE**, (Davy's Herd Book, 296) Sire Earl of Exeter, " " 36)  
Dam Dairy Maid, " " 107)  
Bred by Mr. James Quartly, of Molland, Devon.  
Calved March, 1853. Imported August, 1854.  
First Premium Imp. Devon Bull, between 1 and 2 years, Maryland State Show 1854.  
First Premium Imported Devon Bull, Maryland State Show 1856.  
Price \$350.

**J. HOWARD MCHENRY,**  
aui-1f **PIKEVILLE, BALTIMORE COUNTY, MD.**

**AGENCY**

**FOR THE PURCHASE AND SALE OF**

**IMPROVED BREEDS OF ANIMALS.**

Such as **CATTLE, SHEEP, SWINE, POULTRY, &c.** Pure ground **BONE DUST**, and **SUPER-PHOSPHATE OF LIME** of reliable quality.

Apply at No. 75 Dock street, or at the third door East of 16th street, in South street.

**AARON CLEMENT, Agent.**  
N. B.—A superior article of **COAL** for sale, on the most reasonable terms. Apply as above. aui-1f

**THOROUGH BRED AYRSHIRES****FOR SALE.**

**B**EING overstocked, I offer for Sale 25 head of thorough bred Ayrshire Cattle, gulls, Cows and Heifers, from 1 month to 10 years old, at prices ranging from \$25 to \$300. Purchasers at a distance may rely upon having their orders filled as fairly as those who apply in person.

**RAMSAY MCHENRY,**  
aui-1f **Emmorton, Harford County, Maryland.**

**AFRICAN GUANO.**

**WE** HAVE a lot of this guano, with 6 or 7 per cent. ammonia, which is worthy attention. Also Peruvian, Colombian and Mexican Guanos, at lowest prices.

**S. SANDS & WORTHINGTON, Farmer Office.**  
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**PIANOS! PIANOS!!**

**WAREHOUSES, 181 BALTIMORE STREET, AND 94 WEST FAYETTE STREET,**

*Immediately in the rear of the splendid Dry Goods establishment of Messrs. McElwainy, on the corner of Charles and Fayette streets.*



**THE** attention of those desiring a very superior **PIANO**, is called to the celebrated Pianos of **NUNNS & CLARK,**

**AND CHICKERING & SONS.**

They contain all the improvements of any real value, and their instruments have been thoroughly tested for the past 35 years, and are unquestionably the best Pianos made. They possess remarkable sweetness of tone, action beautifully even, and light of touch, rapidly responsive, and capable of immense power.

Also, a complete assortment of Rosenkrantz's Pianos, with all the late improvements, at very low prices. Address oct 1 **F. D. BENTEN, Baltimore.**

**GRAND AND SQUARE PIANO FORTES.**

**HENRY HARTGE & CO., MANUFACTURERS OF GRAND & SQUARE PIANO FORTES, No. 131 Franklin street, near Eutaw,** where may be found Pianos which for elegance of finish, and sweetness of tone, and agreeable touch are second to none in the country. jyl-1y

**GREAT IMPROVEMENT IN THE MANUFACTURE OF WOOD TUBE, For Chain Pumps, Water Pipe, &c.**

**G. K. TYLER & CO.** have at their *Steam Saw Mill, corner of Wolf and Fell streets, Baltimore, Md.,* one of **WYCOFF'S BORING MACHINES,** and are now prepared to manufacture Tube for Chain Pumps, Pipe for conducting water, and various other purposes. It is made of white pine or other soft wood scantling, in sections eight feet long, with socket joints, water tight, and can be well laid by any common laborer. They are, in many respects, preferable to Lead or Iron Pipes,—being quite as durable, less likely to contaminate the water, and not more than one-third of the cost.

Farmers, Railroads, Mining Companies and others who wish to convey water, will find it to their interest to investigate this matter. What greater luxury can a farmer have than **PURE RUNNING WATER** at his house and barn? It not only promotes the health of man and beast, but saves both time and money.

Prompt attention to all orders addressed to

**G. K. TYLER & CO.**  
jyl-1y **Corner of Pratt & Patterson sts., Baltimore.**

**NOTICE.**

**THE** Roelin Tile Works are now prepared to furnish to farmers and others, Tile for under and surface draining, at the following prices:—

2 inch Pipe Tile at	\$15 per thousand.
3 " " "	20 " "
4 " " "	25 " "
2 " Horse-shoe Tile,	12 " "
3 " " "	15 " "
4 " " "	20 " "

**AG—All orders sent to the works, or to GEO. V. SCOTT & Co., Agents, Petersburg, Va.,** will receive prompt attention. Samples of each kind may be seen at the office of **E. WHITMAN & Co., Baltimore.**

jyl-1y **WM. Y. KEESTER.**

**A POSITIVE CURE FOR CANCER.**

**WITHOUT THE USE OF CAUSTIC OR THE KNIFE.**

*Reliable and uniform in its effects in all cases, and proved, beyond a possible doubt, in every case to which it has been applied.*

The undersigned will guarantee a cure of all external Cancer where Vital Parts are not involved, before the application is made. As the wonderful effects of this remedy is now pretty well known, it is deemed needless to say more than what is expressed above.

A pamphlet giving the full description of cures and the manner of treatment, with other information on the nature and character of Cancer, sent to all persons requiring the knowledge it contains. Address, **JOHN CATIENS,** may 1-1y **Office No. 109 Baltimore st. Baltimore.**

**J. MONTGOMERY & BRO.**  
**DOUBLE SCREENED ROCKAWAY**  
**GRAIN FAN.**  
 The best Fan in the United States!  
**PRICE \$35.**



The above cut is a representation of the Double Screened Rockaway Grain Fan, in full operation. It is manufactured and for sale by the Patentees at 151, 153 & 155 North High street, between Hillen and Gay sts., Baltimore, Md.

It was patented December 30th, 1853—again, June 12th, 1855, and last improvement, January 20th, 1857. The recent improvement enable us to offer a perfect machine—the very best Fan ever offered to the Farmer, the Trade, or the Manufacturer. Its superiority has been acknowledged by all who have used or seen it used, and certain are we, that in this particular Implement, adapted as it is, to ALL kinds of grain, the South, by our invention, has outvied the North or East—as it is incomparably superior to all inventions of this kind—we challenge competition from whatever quarter it may come. We have a large stock of the best materials on hand, and are prepared to deliver 800 Fans in due time this season, and solicit orders.

It will be seen by reference to the proceedings of the different Agricultural Societies of Maryland, Virginia, Delaware, North Carolina and South Carolina, that our Fan has been at nearly all the State and County Fairs, and took the FIRST PREMIUM over all others, for the last five years.

**NOTICE.**—We offer our services to our friends who need Agricultural Implements and Machinery of any description, to purchase the same for them, guaranteeing them the best in the market.

Patent Rights for sale, and Patterns complete, with all the information necessary for manufacturing.

THE FOLLOWING TESTIMONIALS ARE SUBMITTED:

DIXWIDIE Co., Va., Nov. 26th, 1856.

Messrs. J. Montgomery & Bro.

Without any solicitation, I do say with pleasure, that your truly celebrated Rockaway Fan, exceeds my most sanguine expectation in doing its work. I have used it with perfect satisfaction for two years past, it cleans faster and better than any I have ever tried. I believe it saved me the first year in cleaning my crop more than its cost; it is just the Fan the farmer wants and needs, therefore, I can safely recommend it to the Agricultural Community.

Respectfully, yours, &c.

THOMAS B. HAMLIN.

We are of opinion that the Wheat Fan of J. Montgomery & Bro. will in a day fan out more wheat and do it cleaner than any Fan we ever saw tried. We can, with the utmost confidence recommend it to the farmers of Virginia.

JOHN OSBORNE.

SAML. C. LEGRAND.

of Charlotte Co., Virginia.

Your Fan is a perfect machine, doing all that is claimed for it, and answering the highest expectations.

J. R. COUPLAND,

Stony Point, near Yorktown, Va.

All orders addressed to the undersigned, at Baltimore City (Md.) Post office, will be promptly attended to.

J. MONTGOMERY & BRO.,

No. 155 N. High street, between Hillen and Gay, Balto. Md.

**MARYLAND**  
**AGRICULTURAL IMPLEMENT WORKS.**

**SAMUEL COTTINGHAM**

**WOULD** call the attention of Farmers and Dealers to his large stock of FARMING IMPLEMENTS for the Spring Business. He would name in part the following:—

Ploughs in their variety, Cultivators, Harrows, Corn Shellers, Wheat Reapers and Mowers, McCormick's, Ray's and Manney's patents, and has in store and for sale, Peiton's Patent Internal Geared Power, and also the Geared Thrasher, which supercedes the necessity of the leather belt. These Machines are worthy the attention of the farmer. There are three sizes—4, 6 and 8 horse power.

The undersigned would also call the special attention of the farmer to a NEW HAY CUTTER, gotten up by the subscriber the past winter, cheap and good, and not liable to get out of order.

Plough and machine castings by the quantity or single piece. Garden and Field Seeds, Shovels, Forks, Ox-yokes, Scott's Little Giant, and many other Implements too numerous to mention in an advertisement.

My manufactory is in full operation, which will enable me to keep up a first class stock of implements, not to be surpassed by any similar establishment.

Repairing of all kinds done with neatness and dispatch. Call and examine for yourselves, before purchasing elsewhere.

**SAMUEL COTTINGHAM,**

(Formerly Cottingham & Johnson,)

mh-l-y No. 150 PRATT STREET WHARF, BALTO., MD.

**AGRICULTURAL IMPLEMENTS,**  
**MACHINERY, &C.**

**THOMAS NORRIS,**

(OF THE LATE FIRM OF RICE & NORRIS,)

**WOULD** respectfully inform his friends and customers, farmers and dealers generally, that he is prepared to furnish as heretofore, all that is useful and valuable in the way of Agricultural Implements, Machinery and Garden Tools, Field and Garden Seeds. It would be too much of a task to name the almost innumerable variety of Implements—would say that there is scarcely anything in his line from the oldest to the latest improvement, or newly invented article that he is not prepared to furnish on equal terms with any other houses in the city. He would particularly call the attention of farmers to MANNY'S REAPERS and MOWERS, which gave so much satisfaction last season. It is now ready for the approaching harvest, improved in all points indicating the slightest defect heretofore, and is now doubtless the very best combined Machine in the market; order early if you would secure this Machine.

**GRAIN DRILLS.**—Those in want of a good and reliable Grain Drill, with Guano or Seed Attachment, can only have their expectations fully met by purchasing BICKFORD & HUFFMAN'S DRILL, the only efficient Guano distributor I have any knowledge of, order this Machine early, or you may be disappointed, as many were last season, by ordering too late.

**DEWEY'S PATENT WIRE SPRING CLEANER.**—Every farmer should have this valuable implement, by which all the wheat may be saved.

**GRANT'S Grain Cradles, WOLF'S ditto,** with best English Scythes, Grass Scythes and Snathes, Revolving and Independent Teeth Horse Rakes, Large Hand or Loaf Rakes, the very best hand Grain and Hay Rakes in the market, made for real service. VANWICKLE'S Wheat Fans, warranted to give entire satisfaction. MONTGOMERY'S Rockaway Fan, well known as a good Fanning Mill.

Horse Powers and Threshing Machines, of various sizes and prices, which give the best satisfaction to all that have tried them. Ploughs of every description. Cultivators, Harrows, Hoes, Spades, Shovels, Forks, Straw Cutters, Corn and Cob Crushers, Farm Mills, &c., &c. Garden, Field and Flower Seeds, &c., &c.

**THOMAS NORRIS,**

aul Agricultural Store, No. 48 Light St., Balt.

**JOB PRINTING** of every description executed in the best style, at the "Farmer" printing office.

## GROVER & BAKER'S FAMILY



THESE MACHINES are unquestionably the best in the market. No well regulated family can afford to do without a GROVER & BAKER SEWING MACHINE, made expressly for family sewing.

Merchants in good standing from abroad, visiting New York or Boston, can now secure the sale of Grover & Baker's Sewing Machines in their several localities, with great profit to themselves, and advantage to their customers.

GROVER & BAKER,

Sewing Machine Co., 495 Broadway, N. Y.

18 Summer street, Boston.

730 Chestnut street, Philadelphia.

87 Fourth street, St. Louis, Mo.

6 West 4th street, Cincinnati, Ohio.

oct1-3m

## MAKE WAY FOR THE PREMIUM HAY, STRAW & STALK CRUSHER & CUTTER.

**CUMINGS' PATENT SELF-FEEDING FOUR KNIFE MAGIC CUTTER.**—The most durable, perfect and easiest worked machine of the kind in use. Capacity from two to five bushels per minute. With it you may crush and cut your longest stalks, and if requisite the ear and husk also, by hand-power. For cutting Hay and Straw, it is unsurpassable.

Price, only Thirty-Three Dollars, and satisfaction guaranteed.

To secure one of these admirable Machines, send your orders early to A. G. MOTT, No. 40 Ensor street, Baltimore, who is still engaged in the manufacture and sale of Agricultural Implements. Here among other Implements, you may find the world-renowned Wiley, Empire and Minor & Horton Plows, of all sizes, and all of the very superior composition, chilled metal.

dec.1

## FOR SALE,

### ALDERNEY CATTLE AND BLACK HAWK HORSES.



**5 ALDERNEY BULL CALVES** of the following ages, all thorough bred, 8, 8, 4, 2 & 1 month, all by a bull got in the Isle of Jersey, and the three youngest out of imported cows. Also a fine young Alderney Cow, 2 years and 5 months old, believed to be in calf. Also an Alderney Cow, about same age, with a heifer calf by her side.



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**O**WING to infirm health I have determined to sell my farm the "HEMARRAGE," containing about four hundred and fifty acres. To an industrious, enterprising man this farm offers strong inducements to invest. The price at which it is offered (\$15 per acre) is considered low by those acquainted with the productiveness of the soil. Situated in Culpepper Co., Va., on the waters of Crooked Run, one mile distant from Wayland's Merchant Mills, and five miles from the Orange and Alexandria Railroad. Climate healthy and salubrious. About one-fourth of the land is in timber of original growth, abounding in chestnut and locust, and loose rock sufficient to enclose the entire farm. Improvements comfortable, and a young orchard of choice grafted fruit.

Communications addressed to my son, DANIEL J. GARNETT, (who lives on the premises,) will meet with prompt attention; who will also take pleasure in showing the farm to any one wishing to examine it. His address is Waylandburg, Culpepper county, Va.

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**WILLIAM GARNETT.**

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**C**ONTAINING seven hundred and twenty-two (722) acres, lying in the North Garden, Albemarle Co., Va. It is situated within one mile of a contemplated depot, on the Charlottesville and Lynchburg (an extension of the Orange and Alexandria) Railroad, and within five miles of a depot on the Virginia Central Railroad—in the midst of a cove formed by the surrounding mountains. The soil is principally the dark red clay soil of the Piedmont country, superior alike for its productiveness and susceptibility and retention of improvement. There are between 4 and 500 acres under cultivation—including 139 acres of bottom land producing finely without manures—the greater portion of the whole being seeded in clover. The improvements consist of a Brick Dwelling House, 47 by 38 feet, containing twelve rooms, Out Houses, Tobacco Houses, &c. \$35 per acre will be taken for the Farm—it was heretofore held at upwards of \$40 per acre—but having disposed of his other lands, and the owner intending to go South, will dispose of it at the above named price.

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